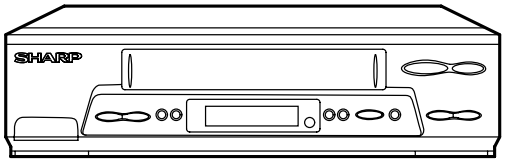
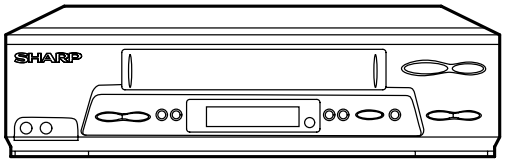
SHARP SERVICE MANUAL

S92P4VC-AA350

VHS VIDEO CASSETTE RECORDER



(AA350A/L/M/W,AA360A,AA370A)



(AA352W,AA550A/L/W,AA560A,AA570A)

MODELS

VC-AA350A/L/M
VC-AA352W
VC-AA360A,AA370A
VC-AA550A/L/W
VC-AA560A,AA570A

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

CONTENTS

SHARP CORPORATION

PRECAUTIONS IN PART REPLACEMENT

When servicing the unit with power on, be careful to the section marked white all over.
This is the primary power circuit which is live.

When checking the soldering side in the tape travel mode, make sure first that the tape has been loaded and then turn over the PWB with due care to the primary power circuit.

Make readjustment, if needed after replacement of part, with the mechanism and its PWB in position in the main frame.

(1) Start and end sensors: Q701 and Q702

Insert the sensor's projection deep into the upper hole of the holder. Referring to the PWB, fix the sensors tight enough.

(2) Photocoupler: IC901 and IC902

Refer to the symbol on the PWB and the anode marking of the part.

(3) Cam switches A and B: S704.

Adjust the notch of the part to the white marker of the symbol on the PWB. Do not allow any looseness.

(4) Take-up and supply sensors: D706 and D707.

Be careful not to confuse the setting direction of the parts in reference to the symbols on the PWB. Do not allow any looseness.

1. SPECIFICATIONS

Format:	VHS PAL/NTSC standard
Video recording system:	Rotary, slant azimuth two heads helical scan system
Video signal:	PAL colour or monochrome (CCiR system B/G) signals
Recording/playing time:	240 min max. with SHARP E-240 tape (PAL: SP mode)
	480 min max. with SHARP E-240 tape (PAL: LP mode)
	720 min max. with SHARP E-240 tape (PAL: EP mode)
	160 min max. with SHARP T-160 tape (NTSC: SP mode)
	480 min max. with SHARP T-160 tape (NTSC: EP mode)
Tape width:	12.7mm
Tape speed:	23.39 mm/s (PAL: SP mode)
	11.70 mm/s (PAL: LP mode)
	7.8 mm/s (PAL: EP mode)
	33.35 mm/s (NTSC: SP mode)
	16.67 mm/s (NTSC: LP mode)
	11.12mm/s (NTSC: EP mode)
Antenna:	75 ohm unbalanced
Receiving channel:	VHF Channel 1A - S41, UHF Channel E21 - C57
RF converter output signal:	UHF Channel E21 - E69 Adjustable preset to E60 (for A, M, W Version)
	UHF Channel E21 - E69 Adjustable preset to E39 (for L Version)
Power requirement:	AC110 - 240V, 50/60 Hz
Power consumption:	Approx. 12W at AC240V/50Hz
Operating temperature:	5°C to 40°C
Storage temperature:	–20°C to 55°C
Weight:	Approx. 2.3 kg
Dimensions:	360 mm (W) x 229 mm (D) x 92 mm (H))
VIDEO	
Input:	1.0 Vp-p, 75 ohm
Output:	1.0 Vp-p, 75 ohm
S/N ratio:	45dB min (PAL-SP)
Horizontal resolution:	250 lines min (PAL-SP)
AUDIO	0 dBs = 0.775 Vrms
Input:	Line 1:-8 dBs/47k ohm
Input:	Line 2:-8 dBs/47k ohm (AA352W,AA550A/L,AA560A,AA570A)
Output:	Line -8 dBs/1k ohm
S/N ratio:	43dB min (SP mode)
Frequency responce:	80 Hz ~ 10 kHz (SP mode)
	80 Hz ~ 5 kHz (LP mode)
	80 Hz ~ 3 kHz (EP mode)
Accessories included:	75 ohm coaxial cable
	Operation manual
	Infrared remote control
	Battery

Note: The antenna must correspond to the new standard DIN 45325 (IEC 169 - 2) for combined UHF/VHF antenna with 75 ohm connector.

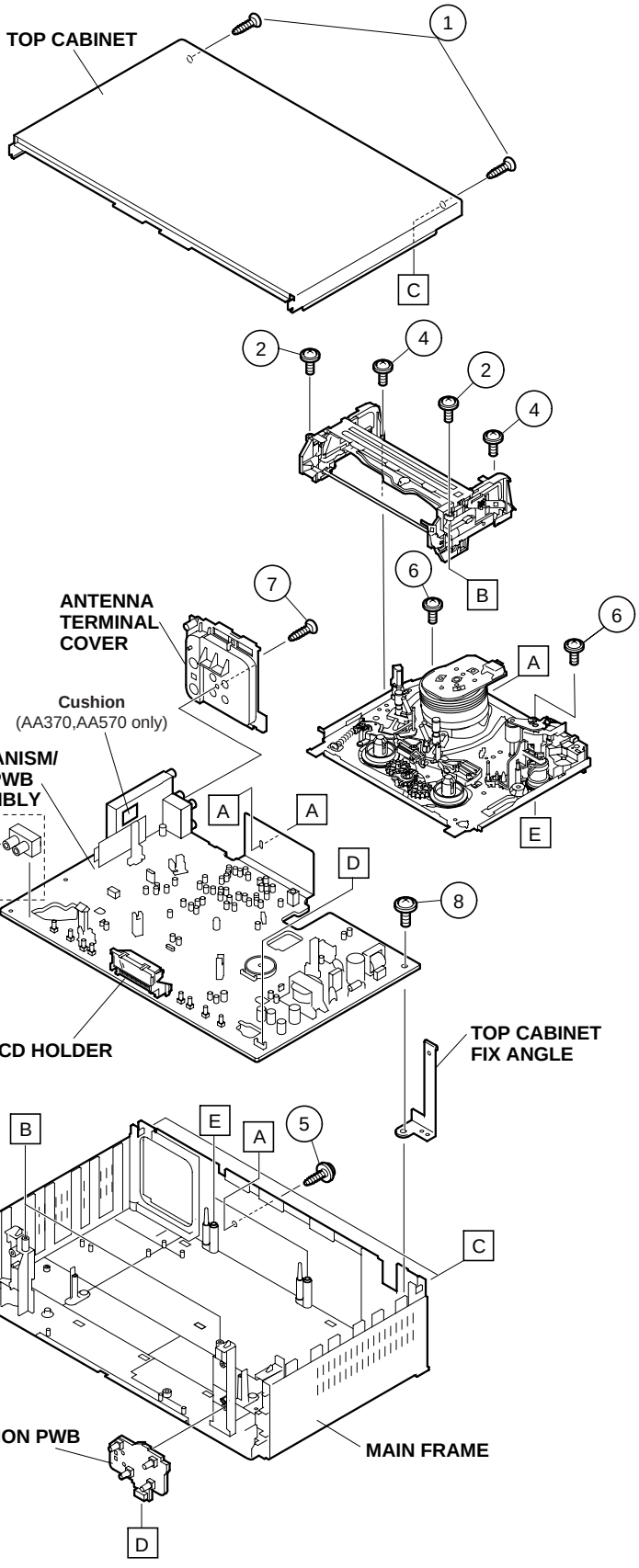
As part of our policy of continuous improvement, we reserve the right to alter design and specifications without notice.

2. DISASSEMBLY AND REASSEMBLY

2-1 DISASSEMBLY OF MAJOR BLOCKS

(VC-AH975W)

TOP CABINET : Remove 2 screws ①.
FRONT PANEL : Remove 2 screws ② and 7 clips ③.
MECHANISM/ MAIN PWB : Remove 2 screws ④, 1 screw ⑤. Remove 2 screws ⑥ and 1screw ⑦ with antenna terminal cover. Remove 1 screw ⑧ with top cabinet fix angle.



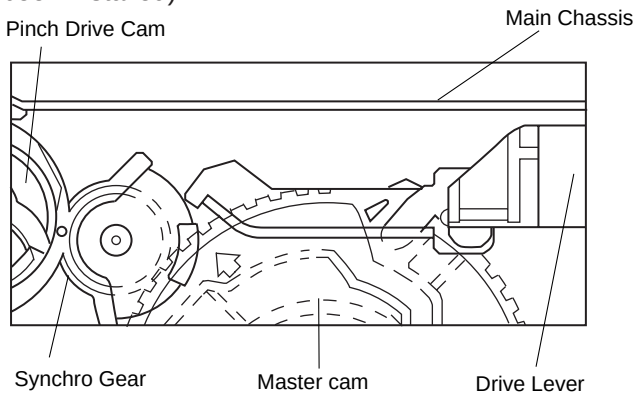
2-3 CARES WHEN REASSEMBLING

INSTALLING THE CASSETTE HOUSING

When the cassette housing is installed on the mechanism, the initial setting is essential condition.
There are two initial setting methods, namely electrical and mechanical.

1. Electrical initial setting

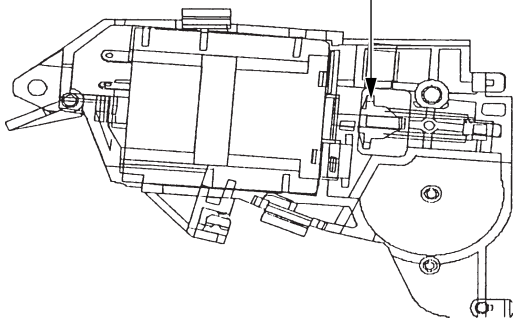
So as to perform initial setting of mechanism execute the Step 1 of Installation of cassette housing. After ascertaining the return to the initial setting position install the cassette housing. (Conditions: When mechanism and PWB have been installed)



2. Mechanical initial setting

- Rotate the worm gear by pushing the flange manually until return to initial position.

Rotate the flange of worm gear by using thin stick.
CW • • • Loading direction
CCW • • • Ejection direction
Note:
Be careful not to damage the gear of worm gear and worm wheel gear. It miight cause a strange sound.



- When apply power supply to rotate the loading motor, please remove/unsolder at least one terminal wire.
- If voltage applied to loading motor without diconnecting the terminal wire, there is a possibility the capstan motor IC will damage.
- The maximum applied voltage is 9V. If more than 9V, there is apossibility the mechanism will damage.
- After ascertaining the return to the initial set position install the cassette housing in the specified position. (This method is applied only for the mechanism.)

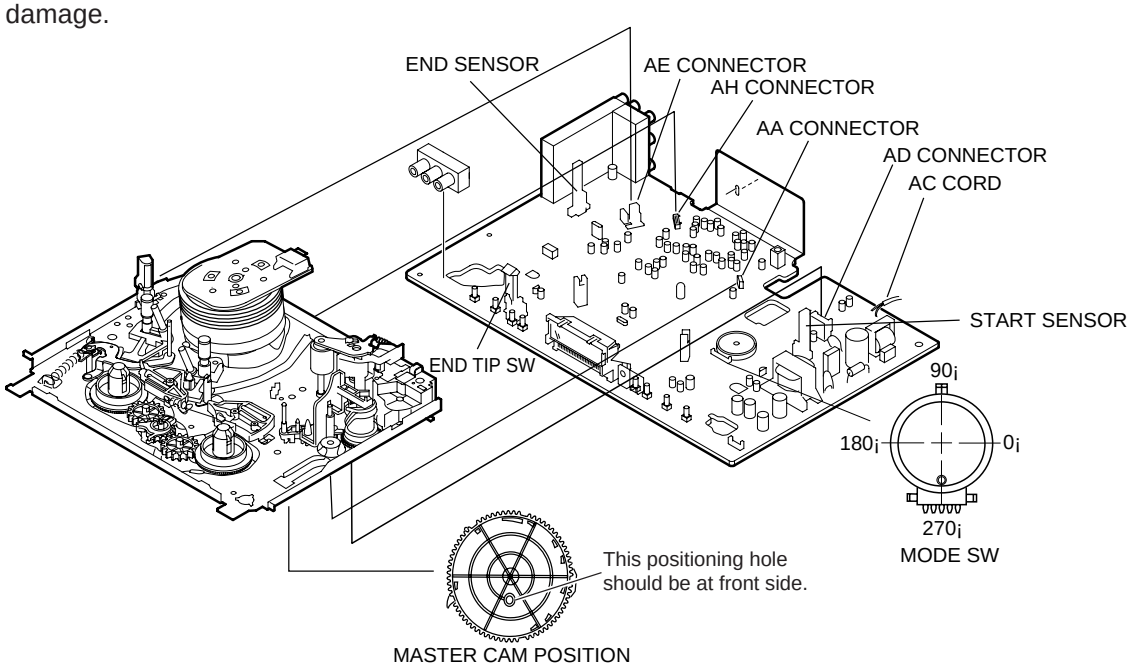
INSTALLING THE MECHANISM ON PWB

Lower vertically the mechanism, paying attention to the mechanism edge mode SW position, (Set the mode SW position to 270° and make sure the master cam position hole also in 270° position) and install the mechanism with due care so that the parts are not damaged.

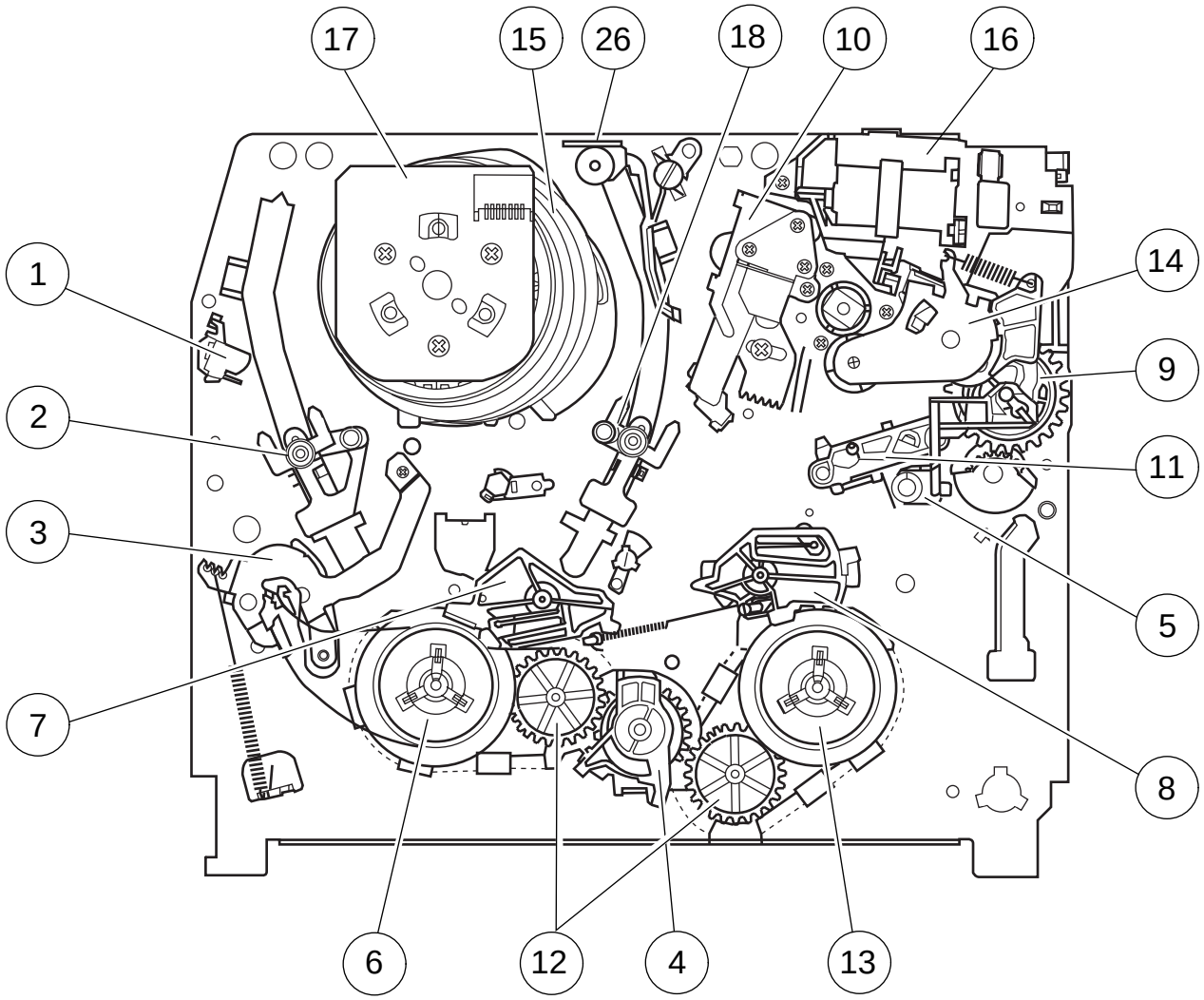
* Please make sure to insert correctly.
If not, strange moving will occur and will couse mechanism damage.

PARTS WHICH NEED PARTICULAR CARE

When installing the mechanism chassis on the PWB unit, take care so as to prevent deformation due to contact of mechanism chassis with REC TIP SW.

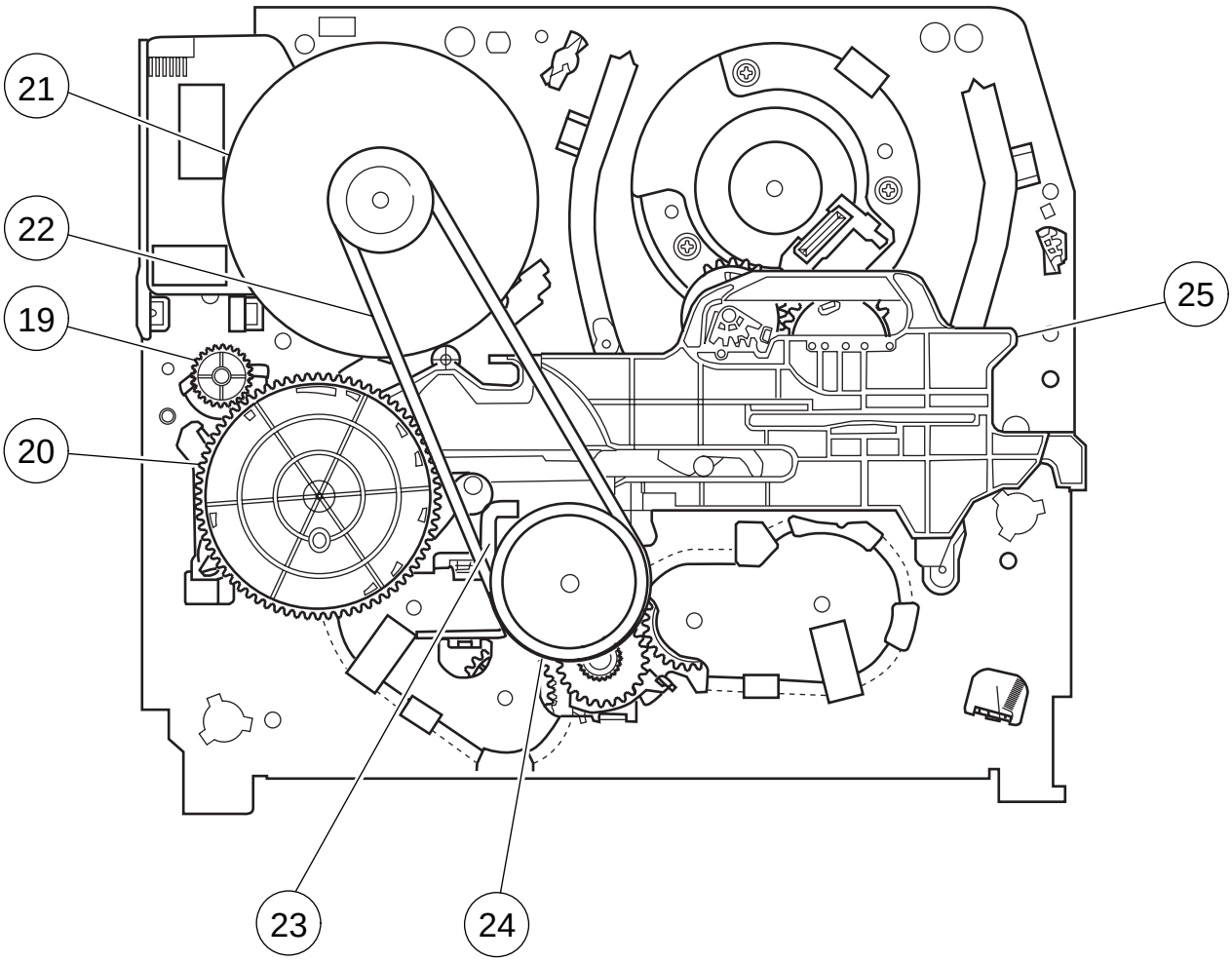


3. FUNCTION OF MAJOR MECHANICAL PARTS (TOP VIEW)



No.	Function	No.	Function
1	Full erase head	11	Reverse guide lever ass'y
2	Supply pole base ass'y	12	Reel relay gear
3	Tension arm	13	Take-up reel disk
4	Idler wheel ass'y	14	Pinch roller lever ass'y
5	Open guide	15	Drum ass'y
6	Supply reel disk	16	Loading motor block
7	Supply main brake	17	Drum driver motor
8	Take-up main brake	18	Take-up pole base ass'y
9	Pinch drive cam	26	Auto head cleaner ass'y
10	A/C head ass'y		

FUNCTION OF MAJOR MECHANICAL PARTS (BOTTOM VIEW)



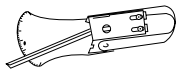
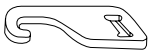
No.	Function	No.	Function
19	Syncro Gear	23	Clutch lever
20	Master cam	24	Limiter pulley ass'y
21	Capstan D.D. motor	25	Shifter
22	Reel belt		

4. ADJUSTMENT, REPLACEMENT AND ASSEMBLY OF MECHANICAL UNITS

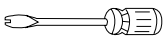
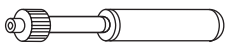
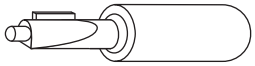
The explanation given below relates to the on-site general service (field service) but it does not relates to the adjustment and replacement which need high-grade equipment, jigs and skill. For example, the drum assembling, replacement and adjustment service must be performed by the person who have finished the technical courses.

4-1 MECHANISM CONFIRMATION ADJUSTMENT JIG

So as to perform completely the mechanism adjustment prepare the following special jigs. So as to maintain the initial performance of the machine the maintenance and check are necessary. Utmost care must be taken so that the tape is not damaged. If adjustment needs any jig, be sure to use the required jig.

No.	Jig Item	Part No.	Code	Configuration	Remarks
1.	Torque Cassette Meter	JiGVHT-063	CZ		This cassette torque meter is used for checking and adjusting the torque of take-up for measuring tape back tension.
2.	Torque Gauge	JiGTG0090	CM		These Jigs are used for checking and adjusting the torque of take-up and supply reel disks.
		JiGTG1200	CN		
3.	Torque Gauge Head	JiGTH0006	AW		
4.	Torque Driver	JiGTD1200	CB		When fixing any part to the threaded hole using resin with screw, use the jig. (Specified torque 5 kg)
5.	Master Plane Jig and Reel Disk Height Adjusting Jig	JiGRH0002	BR		These Jigs are used for checking and adjusting the reel disk height.
		JiGMP0001	BY		
6.	Tension Gauge	JiGSG2000	BS		There are two gauges used for the tension measurements, 300 g and 2.0 kg.
		JiGSG0300	BF		
7.	Pinch pressing force measuring jig	JiGADP003	BK		This Jig is used with the tension gauge. Rotary transformer clearance adjusting jig.
8.	Alignment Tape	VROCPSV	CK		These tapes are especially used for electrical fine adjustment.

Video	Audio	HiFi Audio	Track
625 Monoscope	7k	—	49µm
PAL Colour Bar	1k	—	49µm

9.	Guide roller height adjustment driver	JiGDRiVERH-4	AP		This screwdriver is used for adjusting the guide roller height.
10.	X value adjustment gear driver	JiGDRiVER-6	BM		For X value adjustment
11.	Tension Pole Adjustment Driver	JiGHMEC-M005	CK		This Jig is used for adjustment of tension pole.

4-2 MAINTENANCE CHECK ITEMS AND EXECUTION TIME

Perform the maintenance with the regular intervals as follows so as to maintain the quality of machine.

Parts \ Maintained	500 hrs.	1000 hrs.	1500 hrs.	2000 hrs.	Possible symptom encountered	Remarks
Guide roller ass'y	□	□	□	□	Lateral noises Head occasionally blocked	Abnormal rotation or significant vibration requires replacement.
Sup guide shaft	□	□	□	□		Clean tape contact part with the specified cleaning liquid.
Reverse guide	□	□	□	□		
Slant pole on pole base	□	□	□	□		
Full erase head	□	□	□	○	Colour and beating	Clean tape contact area with the specified cleaning liquid.
A/C head	□	□	□	○	Small sound or sound distortion	
Upper and lower drum ass'y	□	○□	○□	○□	Poor S/N ratio, no colour Poor flatness of the envelope with alignment tape	
Capstan D.D. motor	□	□	□	□	No tape running, uneven colour	
Pinch roller	□	□	□	□	No tape running, tape slack	Clean rubber and rubber contact area with the specified cleaning liquid.
Reel belt		□		○	No tape running, tape slack, no fast forward/ rewind motion	
Tension band ass'y				○	Screen swaying	
Loading motor				○	Cassette not loaded or unloaded	
Idler ass'y				○	No tape running, tape slack	
Limiter pulley		□△		□○		
Supply/take-up main brake levers				○	Tape slack	

NOTE ○ : Part replacement. □ : Cleaning △ : Apply grease
<Specified> Cleaning liquid Industrial ethyl alcohol

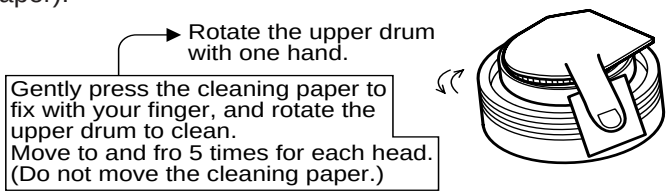
* This mechanism does not need electric adjustment with variable resistor. Check parts. If any deviation is found, clean or replace parts.

Video head cleaning procedure

1. Apply one drop of cleaning liquid to the cleaning paper with the baby oiler.
2. Gently press the cleaning paper against the video head to fix your finger, and move the upper drum so that each head is passed to and fro 5 times (do not move the cleaning paper).
3. Wipe with the dry cleaning paper.

Notes :

- Use the commercially available ethanol of Class 1 as cleaning liquid.
- Since the video head may be damaged, do not move up and down the cleaning paper.
- Whenever the video head is cleaned, replace the cleaning paper.
- Do not apply this procedure for the parts other than the video head.



Parts Code	Description	Code
ZPAPRA56-001E	Cleaning Paper	AW
ZOiLR-02-24TE	Babe Oiler (Spoit)	AH

4-3 REMOVING AND INSTALLING THE CASSETTE HOUSING

• Removal

1. In the cassette removing mode, remove the cassette.
2. Unplug the power cord.
3. Remove in the following numerical order.
   a) Remove two screws ①.
   b) Pull and circle the drive lever and pull up the cassette housing control.

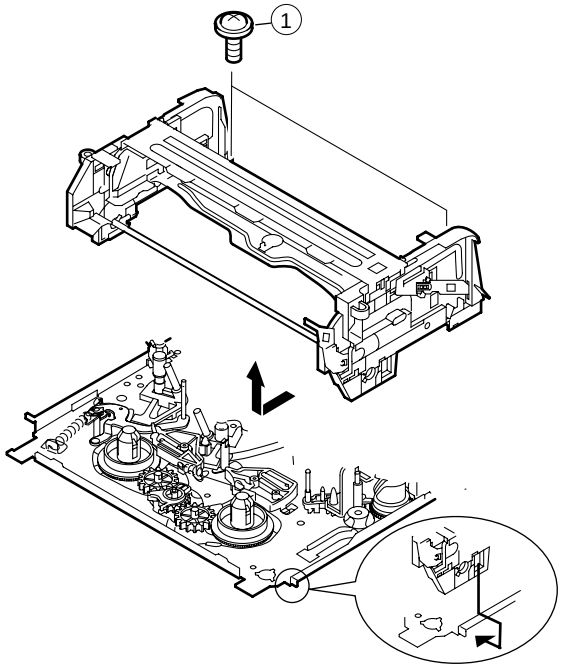


Figure 4-1.

• Reassembly

1. Before installing the cassette housing control, short-circuit between TP803 and TP802 provided at main PWB, press the eject button. The master cam turns and stop in eject position. Fit the drive lever to master cam through main chassis, push down and slide the drive lever towards to master cam.
   *Eject position: Pinch Drive Cam positioning hole parallel to center of Synchro Gear (Synchro gear marking line). Synchro Gear positioning mark parallel to center of master cam.

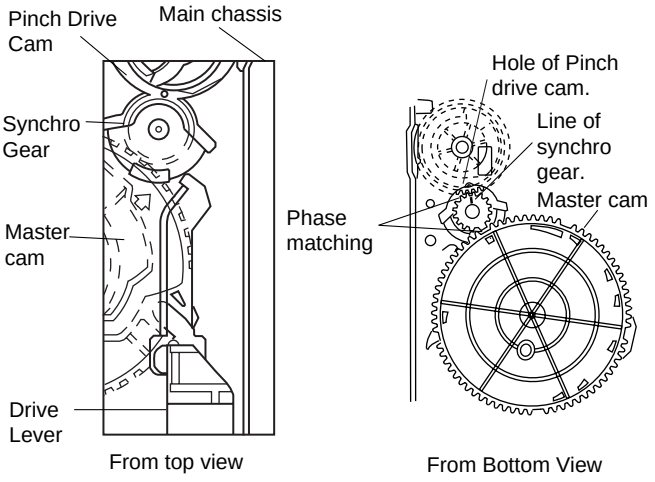


Figure 4-2.

2. Install in the reverse order of removal.

Notes

1. In the case when you use the magnet screw driver, never approach the magnet driver to the A/C head, FE head, and drum.
2. When installing or removing, take care so that the cassette housing control and tool do not contact the guide pin or drum.
3. After installing the cassette housing control once perform cassette loading operation.

4-4 TO RUN A TAPE WITHOUT THE CASSETTE HOUSING CONTROL ASSEMBLY

1. Remove the full-surface panel.
2. Short-circuit between TP803 and TP802.
3. Plug in the power cord.
4. Turn off the power switch.
   (The pole bases move into U.L.position.)
5. Open the lid of a cassette tape by hand.
6. Hold the lid with two pieces of vinyl tape.
7. Set the cassette tape in the mechanism chassis.
8. Stabilize the cassette tape with a weight (500g) to prevent floating.

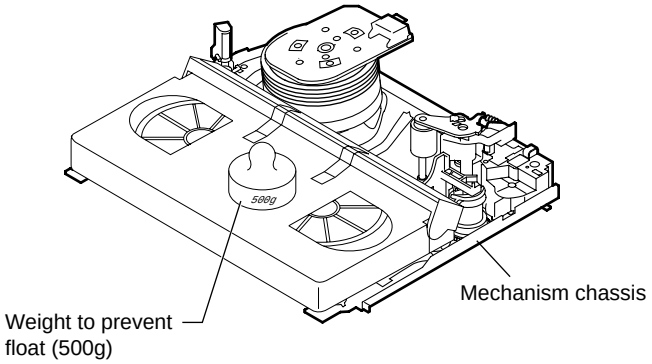


Figure 4-3.

9. Turn on the power switch.
10. Perform running test.

Note:
The weight should not be more than 500g.

To take out the cassette tape.
1. Turn off the power switch.
2. Take out the cassette tape.

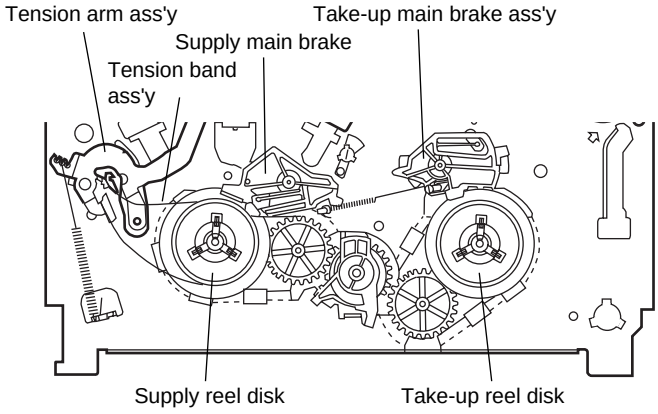
4-5 REEL DISK REPLACEMENT AND HEIGHT CHECK

- **Removal**

1. Remove the cassette housing control assembly.
2. Remove the Supply/Take-up main brake ass'y.
3. Remove tension band from the tension arm ass'y.
4. Remove the reel disk.

Note:

Take care so that the tension band ass'y and main brake ass'y are not deformed.



- **Reassembly (Supply reel disk)**

1. Clean the reel disk shaft and apply grease (SC-141) to it.
2. Match the phases of reel disk and reel relay gear, and set the new reel disk.
3. After checking the reel disk height, wind the tension band ass'y around the reel disk, and hook to tension arm ass'y.
4. Assemble the Supply main brake ass'y.

Notes:

1. When installing the reel disk, take due care so that the tension band ass'y is not deformed and grease does no adhere.
2. Do not damage the Supply main brake ass'y. Be careful so that grease does not adhere to the brake surface.

- **Reassembly (Take-up reel disk)**

1. Clean the reel disk shaft and apply grease (SC-141) to it.
2. Align the phase of the reel disk to that of the reel relay gear and to install a new take-up reel disk onto the shaft.
3. Check the reel disk height and reassemble the take-up main brake ass'y.

Note:

1. Take care so that the Take-up main brake ass'y is not damaged. Take care so that grease does not adhere the brake surface.
2. After reassembly, check the video search rewind back tension (see **4-10**), and check the brake torque (see **4-14**).

- **Height checking and adjustment**

Note:

1. Set the master plane with due care so that it does not contact the drum.
2. When putting the master plane, shift the reverse guide a little in the loading direction. Care must be taken since excessive shift results in damage.

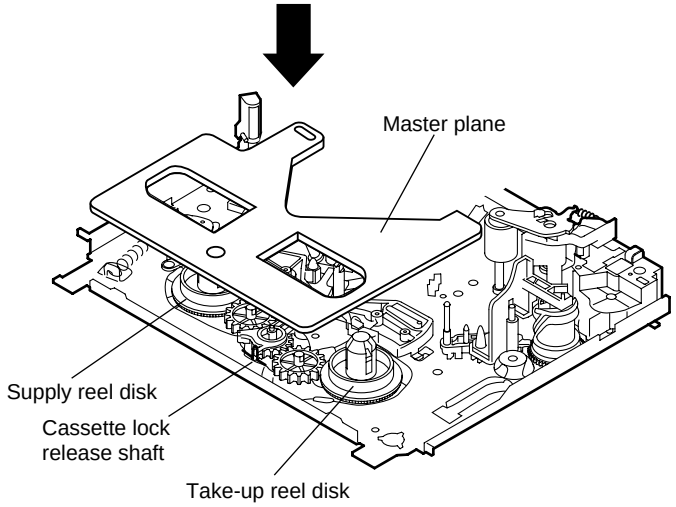


Figure 4-4.

Note:

- Check that the reel disk is lower than part A but higher than part B. If the height is not correct, readjust the reel disk height by changing the poly-slider washer under the reel disk.

Note:
Whenever replacing the reel disk, perform the height checking and adjustment.

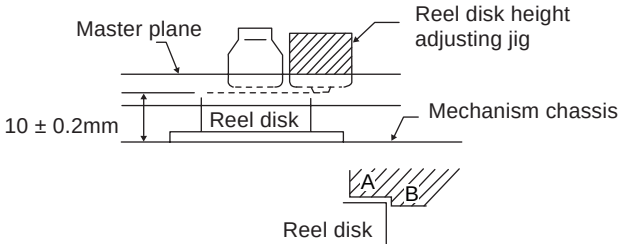


Figure 4-5.

4-6 CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN FAST FORWARD MODE

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**

- **Setting**

1. Set a torque gauge to zero on the scale. Place it on the take-up reel disk.
2. Press the FF button.
3. To calculate the remaining capacity of the play back mode, slowly rotate the supply reel disk, and then shift it into the forward mode.

- **Checking**

1. Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CW direction.
2. Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

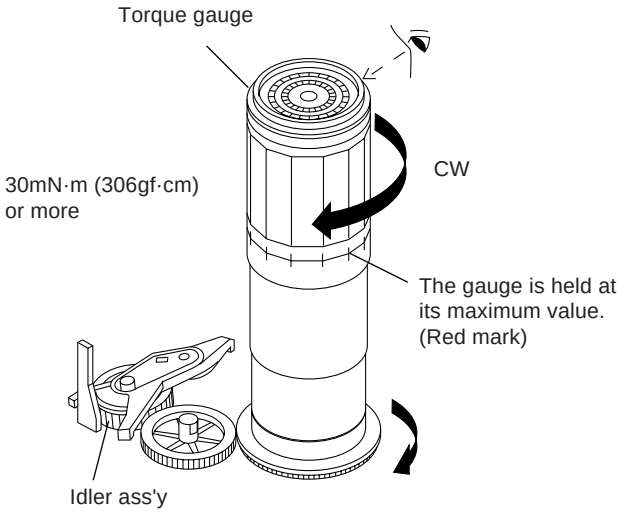


Figure 4-6.

- **Adjustment**

1. If the FF winding-up torque is less than the specified value, clean the capstan D.D. pulley, reel belt, and limiter pulley with cleaning liquid, and check again.
2. If the torque is less than the set value, replace the reel belt.

Notes:

1. Hold the torque gauge by hand so that it is not moved.
2. Do not keep the reel disk in lock state. Do not allow long-time measurement.

4-7 CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN REWIND MODE

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**

- **Setting**

1. Set a torque gauge to zero on the scale. Place it on the supply reel disk.
2. Press the rewind button.
3. To calculate the remaining capacity, slowly rotate the take-up reel disk, and then shift it into the rewind mode.

- **Checking**

1. Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CCW direction.
2. Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

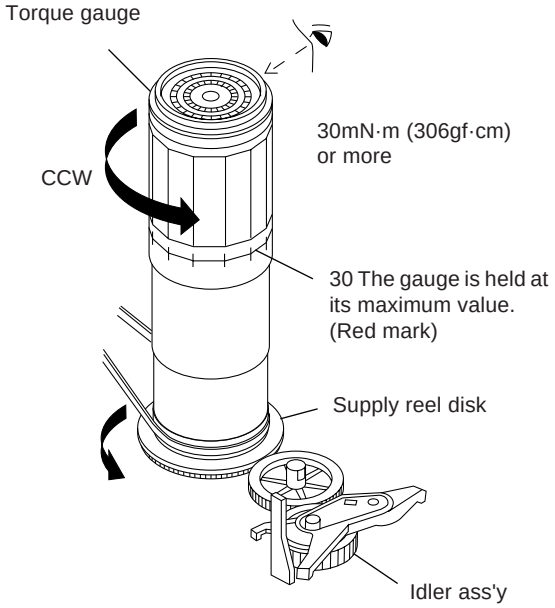


Figure 4-7.

- **Adjustment**

1. If the rewind winding-up torque is less than the specified value, clean the capstan D.D. pulley, reel belt, and limiter pulley with cleaning liquid, rewind again, and check the winding-up torque.
2. If the winding-up torque is still out of range, replace the drive belt.

Notes:
1. Hold the torque gauge by hand so that it is not moved.
2. Do not keep the reel disk in lock state. Do not allow long-time measurement.

4-8 CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN RECORD/PLAYBACK MODE

- **Remove the cassette housing control assembly.**
- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**
- **Turn off the power switch.**
- **Open the cassette torque meter lid, and fix it with tape.**
- **Load the cassette torque meter into the unit.**
- **Put the weight (500g) on the cassette torque meter.**
- **Turn on the power switch.**
- **Press the picture record button, and set LP picture record mode (x2).**

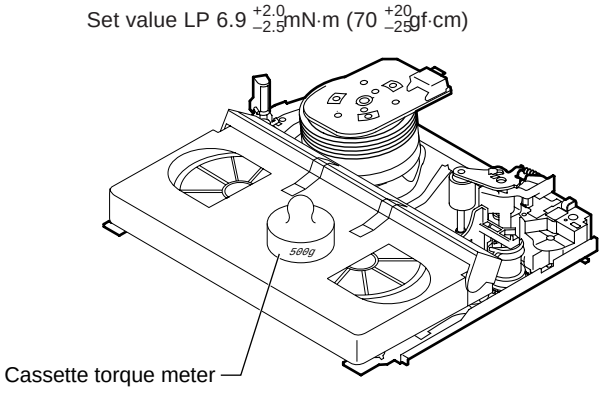


Figure 4-8.

- **Checking**

1. Make sure that value is within the setting 6.9 $^{+2.0}_{-2.5}$mN·m (70$^{+20}_{-25}$gf·cm).
2. The winding-up torque fluctuates due to variation of rotation torque of limiter pulley ass'y. Read the center value of fluctuation as setting.
3. Set the LP record mode (x2) and make sure that the winding-up torque is within setting.

- **Adjustment**

If the playback winding-up torque is not within the setting, replace the limiter pulley assembly.

Note:

When the torque cassette is set, put a weight (500g) to prevent rise.
When the cassette torque meter is taken out.
Turn off the power switch.

4-9 CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN VIDEO SEARCH REWIND MODE

- **Remove the cassette housing control assembly.**
- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**
- **Setting**

Press the playback button and rewind button to set the video search rewinding mode.

- **Checking**

Place the torque gauge on the supply reel disk, and turn it counterclockwise very slowly (one rotation every 1 to 2 seconds) and check that the torque is within the set value 14.1 ± 3.5mN·m. (144 ± 35gf·cm)

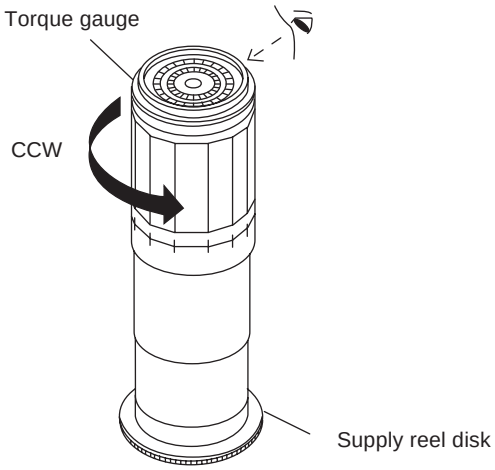


Figure 4-9.

Note:

Surely put the torque gauge on the reel disk to measure. If the torque gauge is raised, accurate measurement is impossible.

- **Adjustment**

If the rewinding playback winding-up torque is not within the setting, replace the limiter pulley assembly.

Note:

The winding-up torque fluctuates due to variation of rotation torque of supply reel disk. Read the center value of fluctuation as setting.

4-10 CHECKING THE VIDEO SEARCH REWIND BACK TENSION

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**

- **Checking**

1. After pressing the play button, press the rewind button, and set the video search rewind mode.
2. Place the torque gauge on the take-up reel disk, and turn it counterclockwise very slowly (one rotation every 2 to 3 seconds) and check that the torque is within the set value 3.7 ± 1.5mN·m (38 ± 15gf·cm).

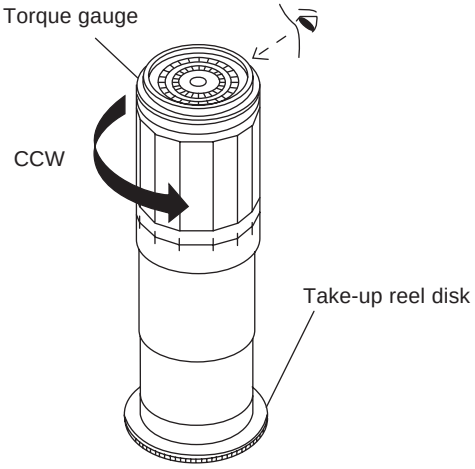


Figure 4-10.

Notes:

Set the torque gauge securely on the take-up reel disk. If it is not secure, the measurement will be incorrect.

4-11 CHECKING THE PINCH ROLLER PRESSURE

∗ Checking can be perform with or without cassette housing control.

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**

- **Checking**

Press the play button to set the playback mode.

1. Detach the pinch roller from the capstan shaft. Do not separate excessively. Or the pinch lever and pinch double action lever may disengage.
2. Engage the tension gauge adapter with the pinch roller shaft, and pull in the arrow direction.
3. Gradually return the pinch roller, and measure the pulling force when the pinch roller contacts the capstan shaft.
4. Make sure that the measured value is within setting change to 9.8 ± 2N (1.0 ± 0.2kgf).

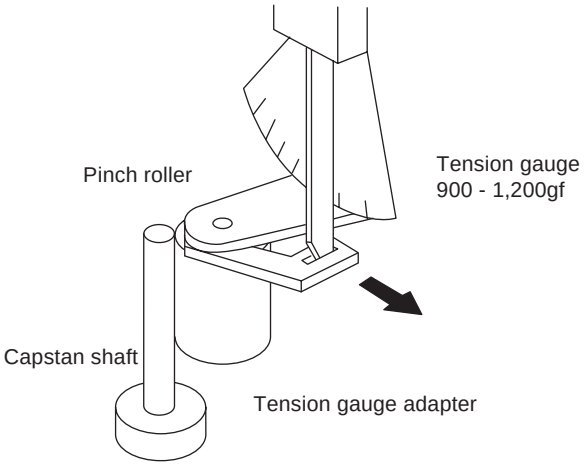


Figure 4-11.

4-12 CHECKING AND ADJUSTMENT OF TENSION POLE POSITION

∗ Checking can be perform with or without cassette housing control.

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**

- **Setting (without cassette housing control)**

1. Turn off the power switch.
2. Open the cassette tape (E-180), and fix with tape.
3. Set the cassette tape in loading state.
4. Put the weight (500g) on the cassette tape.
5. Turn on the power switch.
6. Make the adjustment with the beginning of a E-180 tape.

- **Setting (with cassette housing control)**

1. Insert cassette tape (E-180).
2. Make the adjustment with the beginning of a E-180 tape.

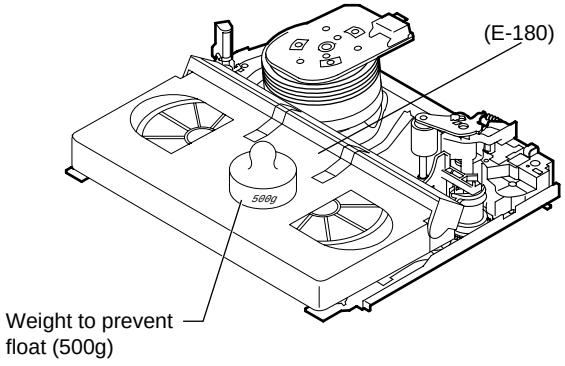
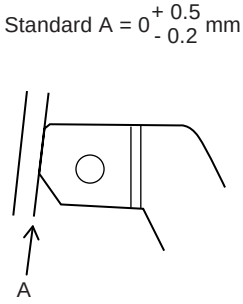


Figure 4-12.

- **Checking**

1. Set a cassette tape, push the REC button to place the unit in the SP record mode. Now check the tension pole position.
2. Visually check to see if the position of the tension pole is within the $0^{+0.5}_{-0.2}$ mm from the left side line.



Make the adjustment with the beginning of a E-180 tape.

Figure 4-13.

At left side from the reference line. (A).

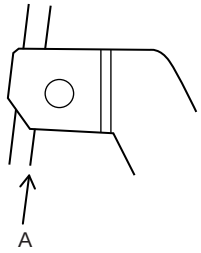


Figure 4-14.

Insert the tension pole adjustment driver to main chassis hole, and rotate clockwise.

At right side from the reference line. (A).

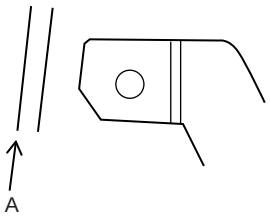


Figure 4-15.

Insert the tension pole adjustment driver to main chassis hole, and rotate counterclockwise.

Tension pole adjustment driver adjusting direction

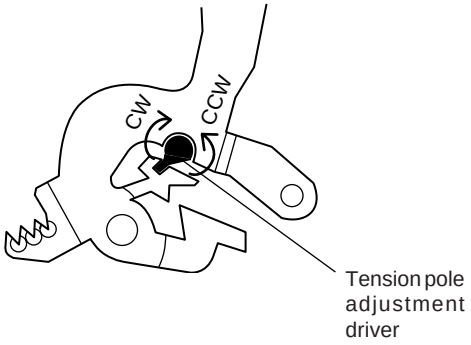


Figure 4-16.

4-13 CHECKING AND ADJUSTMENT OF RECORD/PLAYBACK BACK TENSION

∗ Checking can be perform with or without cassette housing control.

- **Remove the cassette housing control assembly.**
- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**
- **Setting (without cassette housing control)**

1. Turn off the power switch.
2. Open the cassette torque meter and fix with tape.
3. Set the cassette torque meter in loading state.
4. Put the weight (500g) on the cassette torque meter.
5. Turn on the power switch.

- **Setting (with cassette housing control)**

1. Insert cassette torque meter.

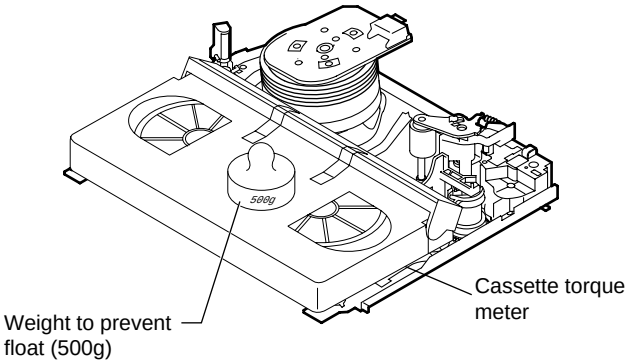


Figure 4-17.

- **Checking**

1. Push the REC button to place the unit in the SP record mode.
2. At this time ascertain that the back tension is within the setting 3.9 to 5.5mN·m (40 to 56gf·cm) by seeing the indication of torque cassette meter.

- **Adjustment**

1. If the indication of torque cassette meter is lower than the setting, shift the tension spring engagement to the part A.
2. If the indication of torque cassette meter is higher than the setting, shift the tension spring engagement to the part B.

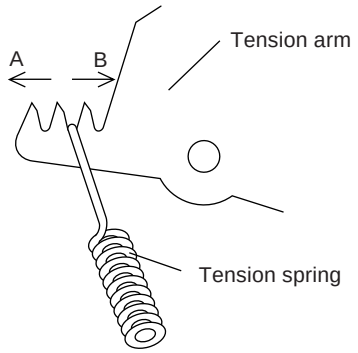
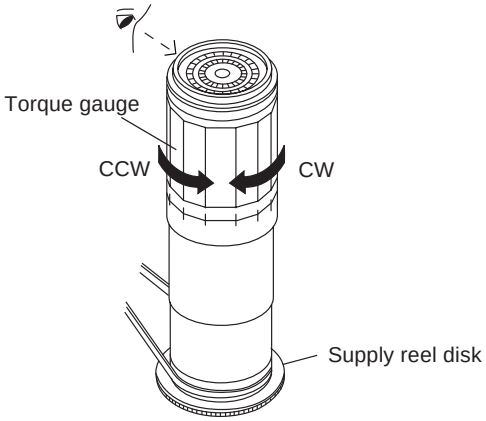


Figure 4-18.

4-14 CHECKING THE BRAKE TORQUE

- **Checking the brake torque at the supply side**



CCW:	4.41 $\pm^{+2.0}_{-1.5}$ mN·m (45 $\pm^{+20}_{-15}$ gf·cm)
CW:	4.12 $\pm^{+1.5}_{-1.2}$ mN·m (42 $\pm^{+15}_{-12}$ gf·cm)

Figure 4-19.

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**

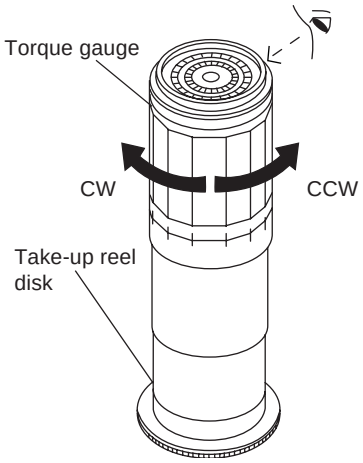
- **Setting**

1. Set a torque gauge to zero on the scale. Place it on the supply reel disk.
2. Switch from the FF mode to the STOP mode.
3. Disconnect the power cord.
4. Please check Idler gear not contact with reel relay gear (SU side)

- **Checking**

Turn the torque gauge at a rate of about one turn/2 sec in the CW direction/CCW direction with respect to the supply reel disk so that the reel disk and torque gauge pointer rotate at equal speed, and make sure that the value is within the setting (CW direction: 4.12 $\pm^{+1.5}_{-1.2}$ mN·m (42 $^{+15}_{-12}$ gf·cm); CCW direction: 4.41 $^{+2.0}_{-1.5}$ mN·m (45 $^{+20}_{-15}$ gf·cm).

- **Checking the brake torque at the take-up side**



CCW:	4.41 $\pm^{+2.0}_{-1.5}$ mN·m (45 $\pm^{+20}_{-15}$ gf·cm)
CW:	4.12 $\pm^{+1.5}_{-1.2}$ mN·m (42 $\pm^{+15}_{-12}$ gf·cm)

Figure 4-20.

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP803 and TP802 provided at main PWB, plug in the power cord.**

- **Setting**

1. Switch from the FF mode to the STOP mode.
2. Disconnect the power cord.
3. Set a torque gauge to zero on the scale. Place it on the take-up reel disk.
4. Please check Idler gear not contact with reel relay gear (TU side)

- **Checking**

1. Turn the torque gauge at a rate of about one turn/2 sec in the CCW direction/CW direction so that the reel disk and torque gauge pointer rotates at equal speed and make sure that the value is within the setting (CCW direction: 4.41 $^{+2.0}_{-1.5}$ mN·m (45 $^{+20}_{-15}$ gf·cm), CW direction: 4.12 $^{+1.5}_{-1.2}$ mN·m (42 $^{+15}_{-12}$ gf·cm).

2. Adjustment of the brake torque at the supply side and the take-up side

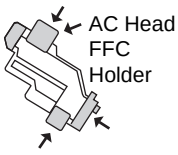
- Unless the supply side brake torque or take-up side brake torque is within the setting, clean the felt surface of reel disk (supply, take-up) brake lever, check again the brake torque.
- If value cannot be set within the setting yet, replace the main brake ass'y or main brake spring.

4-15 REPLACEMENT OF A/C (AUDIO/CONTROL) HEAD

1. In eject position unplug the power cord.

- **Removal**

1. Take out FFC holder from main chassis. (Push 3 hooking point and pull-up the holder).
2. Remove the screws ①②③, Tilt screw.
3. Unsolder the PWB fitted to the A/C head.



Notes:

1. When replacing, never touch the head. If you touched, clean with the cleaning liquid.
2. When removing the screw ③, take care so that the spring may out.

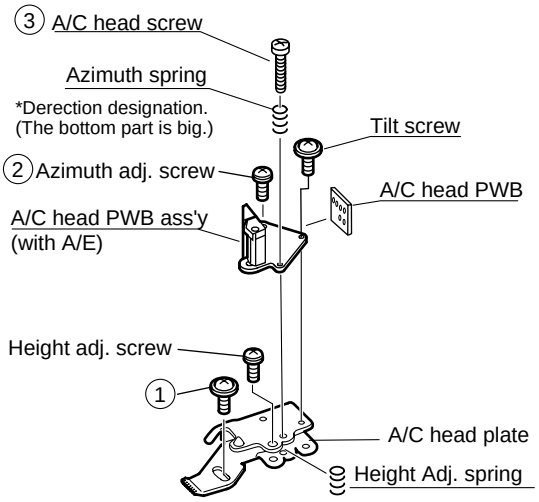


Figure 4-21.

- **Replacement**

1. Solder the removed PWB to the new head assembly.
2. Adjust the height from the A/C head arm (lower surface) to the A/C head plate to 10.8mm with slide calipers. (3 places of azimuth screw section, tilt screw section and A/C head front section) (See the figure below.)

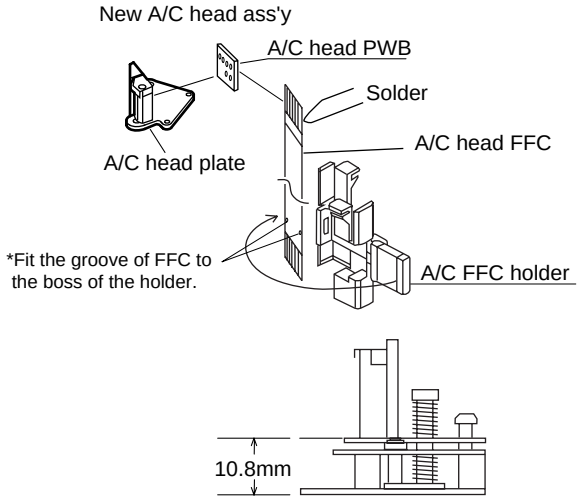


Figure 4-22.

3. Align the left end of gear of A/C head arm with the punched mark of chassis, tentatively tighten the screws ① so as to ensure smooth motion of A/C head arm. Tightening torque must be 0.45 ± 0.05N·m (4.5 ± 0.5kgf·cm).

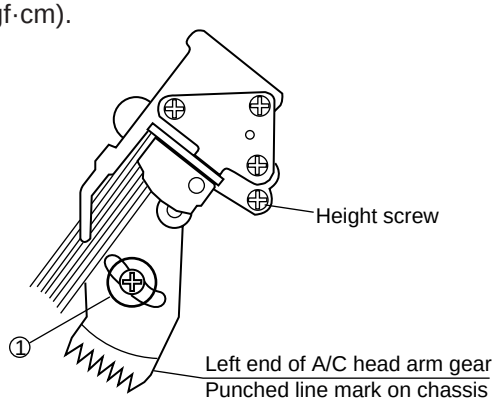


Figure 4-23.

Note:

1. If the screw ① is tighten tentatively too loose, the azimuth and height of A/C head may change when they are finally tightened. Therefore care must be taken.
2. After completion of A/C head be sure to adjust tape running. (Execute the running adjustment by the method described in **4-17**.)

4-16 A/C HEAD HEIGHT ROUGH ADJUSTMENT

- **Setting**

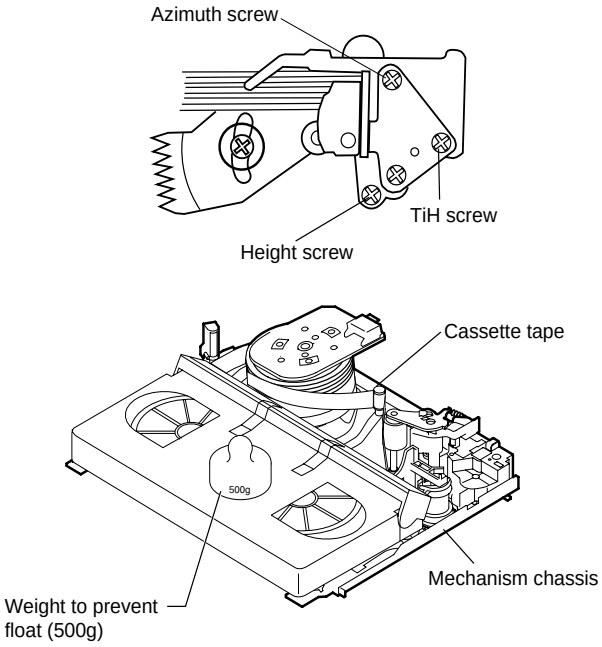


Figure 4-24.

1. Set the cassette tape in the unit.
2. Press the PLAY button to put the unit in the playback mode.
3. Roughly adjust the height of the A/C head by turning the height screw until the tape is in the position shown below.

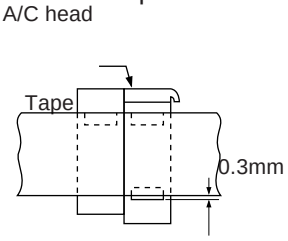


Figure 4-25.

- **Adjustment**

Adjust the height screw visually so that the control head is visible 0.3mm below the bottom of the tape.

4-17 ADJUSTMENT OF TAPE DRIVE TRAIN

1. Tape run rough adjustment
   ① Check and adjust the position of the tension pole. (See **4-12**.)
   ② Check and adjust the video search rewind back tension. (See **4-10**.)
   ③ Connect the oscilloscope to the test point for PB ATR signal output (TP201). Set the synchronism of the oscilloscope to EXT. The PB ATR signal is to be triggered by the head switching pulse (TP202).
   ④ Set the alignment tape (VROCPSV) to play.

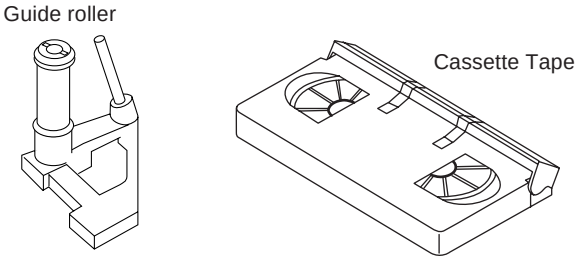


Figure 4-26.

   ⑤ Press the tracking button (+), (–) and change the ATR signal waveform from max to min and from min to max. At this time make sure that the ATR signal waveform changes nearly parallel.
   ⑥ Unless the ATR signal waveform changes nearly parallel, adjust the height of supply side and take-up side guide roller so that the envelope waveform changes nearly parallel. (For ATR signal adjustment procedure refer to Figure 4-30.)
   ⑦ Turn the tilt screw to remove the tape crease at the fixing guide flange.
   Playback the tape and check for tape crease at the fixing guide flange.
   (1) If there is no tape crease
   Turn the tilt screw clockwise so that tape crease appears once at the flange, and then return the tilt screw so that the crease disappears.
   (2) If there is tape crease
   Turn counterclockwise the tilt screw so that the tape crease disappears.
   (Reference) If the tilt screw is turned clockwise crease appears at the lower flange.

Notes:

1. Previously set the tracking control in the center position, and adjust the ATR signal waveform to maximum with X value adjustment nut. Thereby the tape run rough adjustment is facilitated.
2. Especially the outlet side ATR signal waveform must have higher flatness.

Figure 4-27.

2. Adjustment of A/C head height and azimuth
   ① Perform the initial setting of A/C head position by the method stated in "**4-15** Replacement 3".
   ② Connect the oscilloscope to the audio output terminal.
   ③ Using the alignment tape in which 1 kHz linear audio signal has been recorded, adjust the height screw so as to get max audio output.
   ④ Using the alignment tape in which 7 kHz linear audio signal has been recorded, adjust the azimuth screw so as to get max audio output.
   ⑤ The adjustment of ③ and ④ twice or three times repeat, and finally adjust ④.

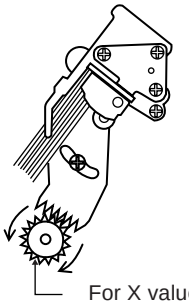
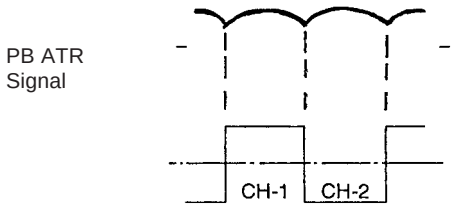


Figure 4-28.

3. Tape run adjustment
   ① Connect the oscilloscope to PB ATR signal output test point, set oscilloscope sync to EXT, trigger-input the PB CHROMA signal (head switching pulse).
   ② Rough adjustment of X value
   Tentatively fix A/C head arm screws ① by the method described in **4-15** "Replacement 3".
   Playback the alignment tape (VROCPSV) and shortcircuit between TP801 and TP802. As a result the auto-tracking is automatically cancelled, so that the X value adjustment mode is set.
   Move the A/C head with the X value adjustment gear driver (JiGDRiVER-6) by the method shown in Figure 4-33, and adjust the A/C head so as to get the maximum ATR signal waveform. (Note: When the A/C head is adjusted, adjust so that the maximum ATR signal waveform is obtained nearest the position of initial setting made in **4-15**.)

③ Next, press the tracking button (+), (–) and change the ATR signal waveform from max to min and from min to max. At this time adjust the height of supply and take-up side guide roller with the adjustment driver (JiGDRiVERH-4) so that the ATR signal waveform changes nearly parallel.
④ If the tape is lifted or sunk from the helical lead surface, the PB ATR signal waveform appears as shown in Figure 4-30.
⑤ Press the tracking button (+), (–) and make sure that the ATR signal waveform changes nearly parallel.
⑥ Finally, check tape crease near the reverse guide. If tape crease is found, adjust tilt screw 45˚ counter clockwise. Small tape crcase will appear at retain guide after this adjustment finished.



Head switching pulse

Figure 4-29.

4. A/C head X value adjustment
① Fix A/C head arm screws ① by the method described in **4-15** "Replacement 3".
② Playback the alignment tape (VROCPSV), and shortcircuit between TP801 and TP802. As a result the auto-tracking is automatically cancelled, so that the X value adjustment mode is set.

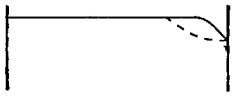
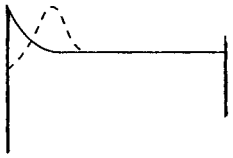
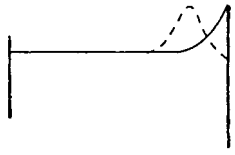
	When the tape is above the helical lead.		When the tape is below the helical lead.	
	Supply side	Take-up side	Supply side	Take-up side
				
				
Adjustment	Supply side guide roller rotated in clockwise direction (lowers guide roller) to flatten ATR signal.	Take-up side guide roller rotated in clockwise direction (lowers guide roller) to flatten ATR signal.	Supply side guide roller rotated in counterclockwise direction (raises guide roller) to make the tape float above the helical lead. The supply side guide roller is then rotated in the clockwise direction to flatten the ATR signal.	Take-up side guide roller rotated in counterclockwise direction (raises guide roller) to make the tape float above the helical lead. The take-up side guide roller is then rotated in the clockwise direction to flatten the ATR signal.

Figure 4-30.

③ Move the A/C head with the X value adjustment gear driver by the method shown in Figure 4-33, and adjust the A/C head so as to get the maximum ATR signal waveform. (Note: At this time adjust so as to get the maximum ATR signal waveform nearest the A/C head position which has been set in case of X value rough adjustment as stated in **4-17**, 3- ②.)
④ Adjust the playback switching point (Refer to the electric adjustment method.)
⑤ Playback the self-picture-recorded tape, and check the flatness of ATR signal waveform and sound.

Notes:
When the A/C head X value adjustment is performed, be sure to perform at first X value rough adjustment (refer to **4-17**, 3-②).

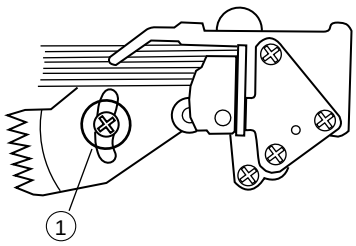


Figure 4-31.

4-18 REPLACEMENT OF THE CAPSTAN D.D. (DIRECT DRIVE) MOTOR

- Remove the mechanism from the set.

- **Removal (Follow the order of indicated numbers.)**

1. Unsolder loading motor wire and drum FFC .
2. Remove the reel belt ①.
3. Remove the three screws ②.

- **Reassembly**

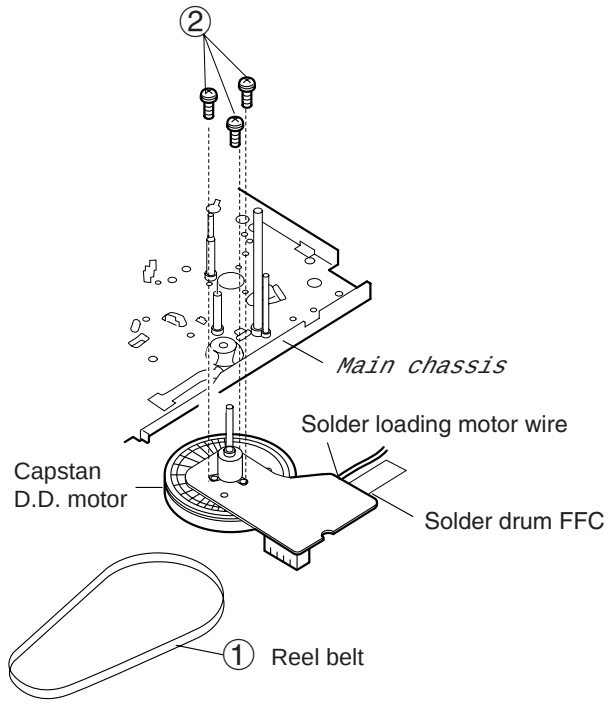


Figure 4-32.

1. Taking care so that the capstan shaft does not contact the mechanism chassis, set its position on the mechanism chassis, and then install with the three screws.
2. Install the reel belt.
3. Solder loading motor wire and insert drum FFC .

Notes:

1. After installing the capstan D.D. motor, be sure to rotate the capstan D.D. motor and check the movement.
2. Set the tape, and check for the tape crease near the reverse guide in the playback mode. Adjust the A/C head and azimuth as stated in **4-17** item 2.

4-19 REPLACEMENT OF DRUM D.D. MOTOR

1. Set the ejection mode.
2. Withdraw the main power plug from the socket.

- **Removal (Perform in numerical order.)**

1. Disconnect the FFC cable ①.
2. Unscrew the D.D. stator assembly fixing screws ②.
3. Take out the D.D. stator assembly ③.
4. Unscrew the D.D. rotor assembly fixing screws ④.
5. Take out the D.D. rotor assembly ⑤.

Notes:

1. In removing the D.D. stator assembly, part of the drum earth spring pops out of the pre-load collar. Be careful not to lose it.
2. Install, so that the D.D. rotor ass'y and upper drum ass'y mounting direction check holes align. (Align the upper drum dent with the rotor hole.)
3. Be careful not to damage the upper drum or the video head.
4. Protect the hole elements from shock due to contact with D.D. stator or D.D. rotor ass'y.
5. After installation adjust the playback switching point for adjustment of servo circuit.

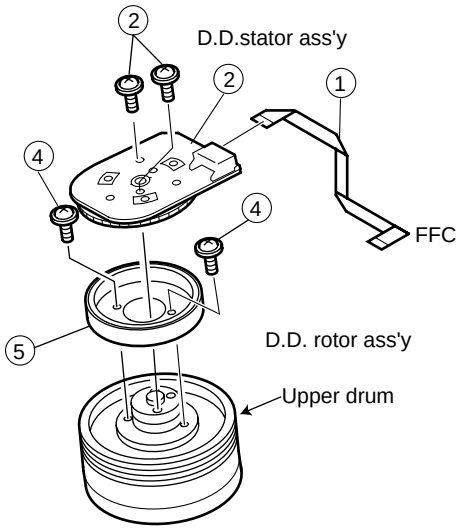


Figure 4-33.

4-20 REPLACING THE UPPER AND LOWER DRUM ASSEMBLY

• Replacement (Perform in the numerical order)
① Remove the motor as stated in **4-19** D.D. motor replacement.
② Remove the drum earth brush ass'y ②.
③ Remove the upper and lower drum assembly from main chassis ①.
④ Remove the drum FFC holder ③.

[Cares when replacing the drum]
1. Be careful so that the drum earth brush is not lost.
2. Do not touch directly the drum surface.
3. Fit gently the screwdriver to the screws.
4. Since the drum assembly is an extremely precise assembly, it must be handled with utmost care.
5. Make sure that the drum surface is free from dust, dirt and foreign substances.
6. After replacing the drum be sure to perform the tape running adjustment.
   After that, perform also the electrical adjustment.
   • Playback switching point adjustment
   • X-position adjustment and check
   • Standard and x-3 slow tracking adjustment
7. After replacing the drum clean the drum.

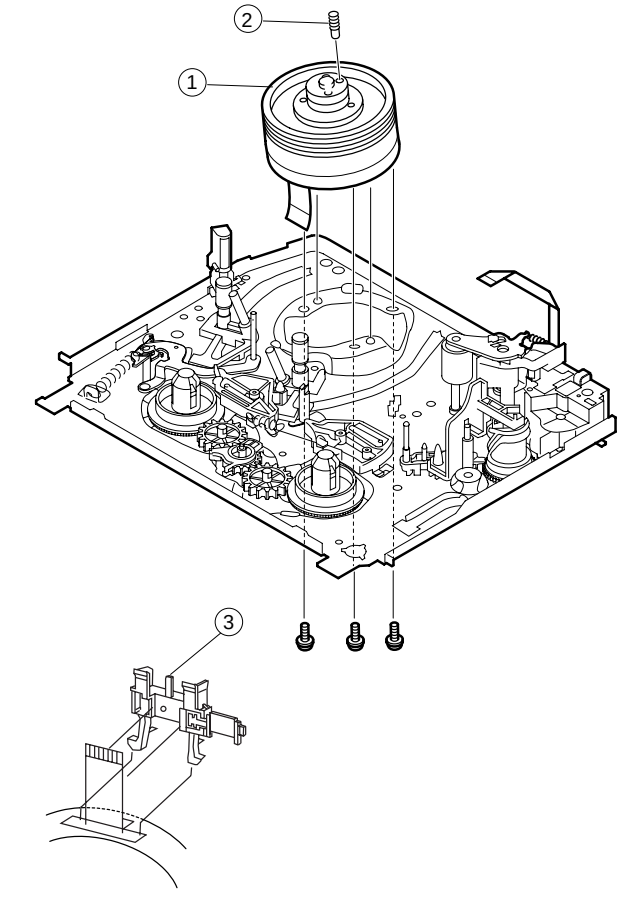


Figure 4-34.

4-21 ASSEMBLING OF PHASE MATCHING MECHANISM COMPONENTS

- **Assemble the phase matching mechanism components in the following order.**

1. Assemble the reverse guide lever and pinch drive cam.
2. Mounting the shifter (on the back of the mechanism chassis).
3. Mounting the master cam (on the back of the mechanism chassis).
4. Assemble synchro gear.
5. Assemble the loading motor parts.

• PINCH DRIVE CAM AND REVERSE GUIDE LEVER ASSEMBLING METHOD.

(Place the following parts in position in numerical order.)
(1)Pinch drive cam ①
(2)Reverse guide spring ②
(3)Reverse guide lever ass'y ③
(4)Open guide ④

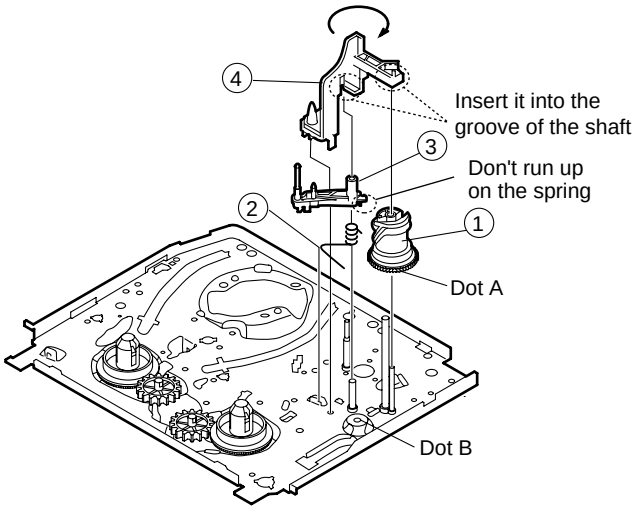
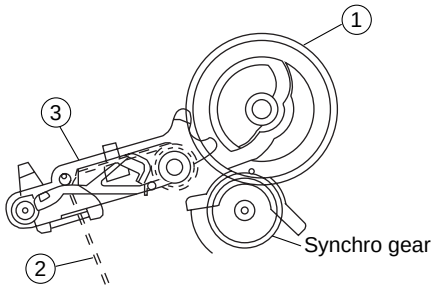
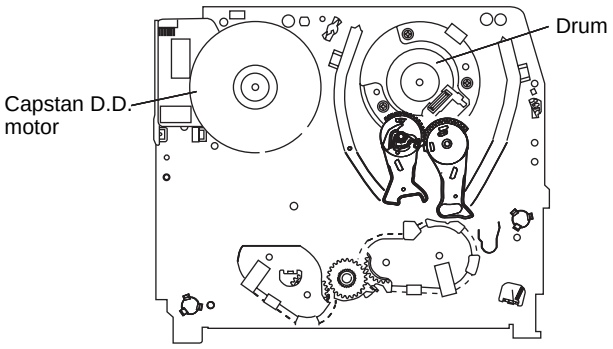


Figure 4-35.



From Top View

4-22 INSTALLING THE SHIFTER



(Bottom side of mechanism chassis)

Figure 4-36.

1. Make sure that the loading arm T and S are at the Phase-Matching point as shown below ⓐ.
2. Fix the shifter position setting part to the roading arm T position setting part as shown in figure ⓑ
3. Make sure tension arm not run on the shifter as shown in figure ⓒ.

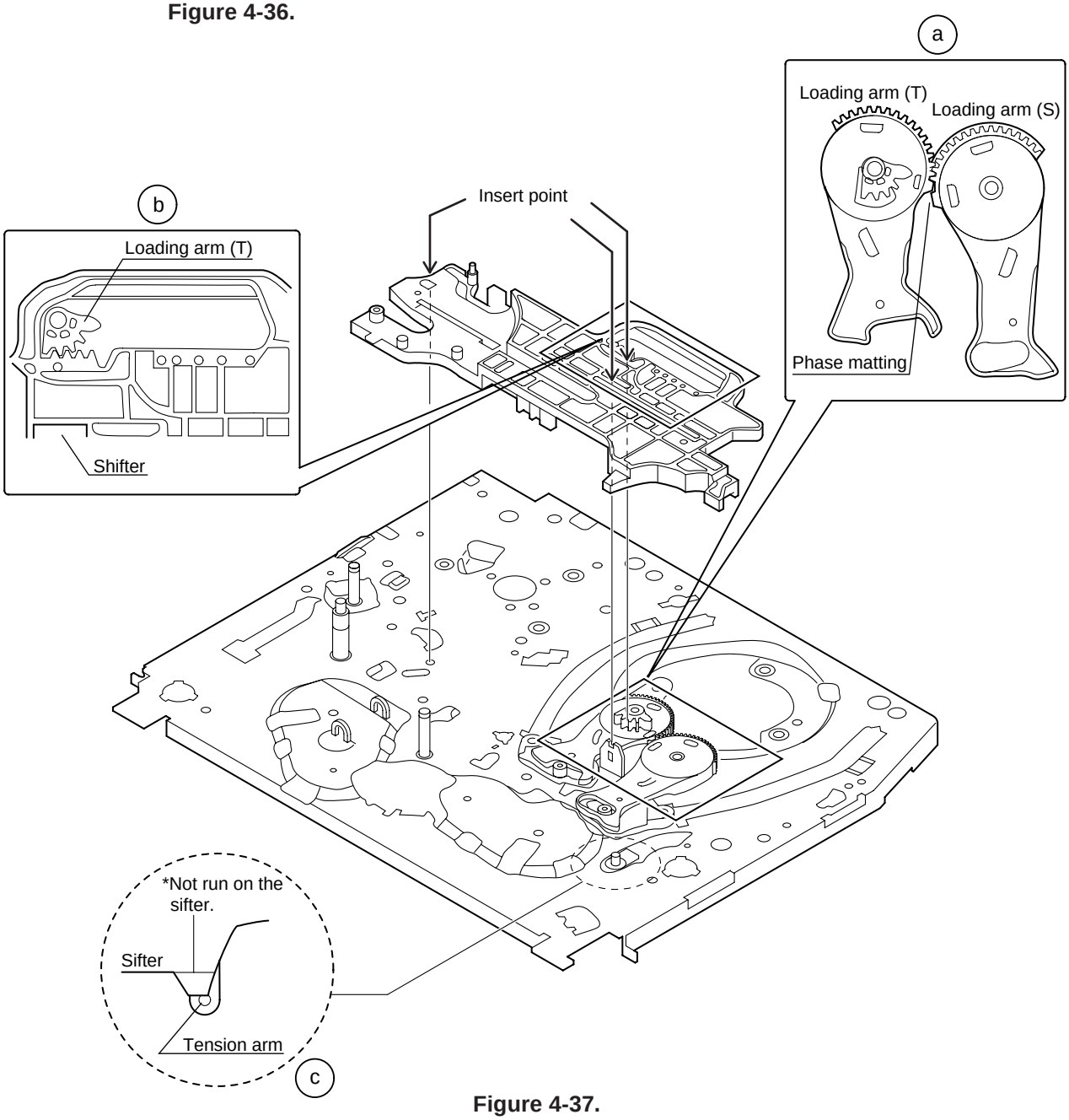


Figure 4-37.

4-23 INSTALLING THE MASTER CAM (AT REAR SIDE OF MECHANISM CHASSIS)

1. Make sure beforehand that the shifter is at initial position. (Right side from bottom view)
2. Place the master cam in the position as shown below.
3. Fix the E ring.

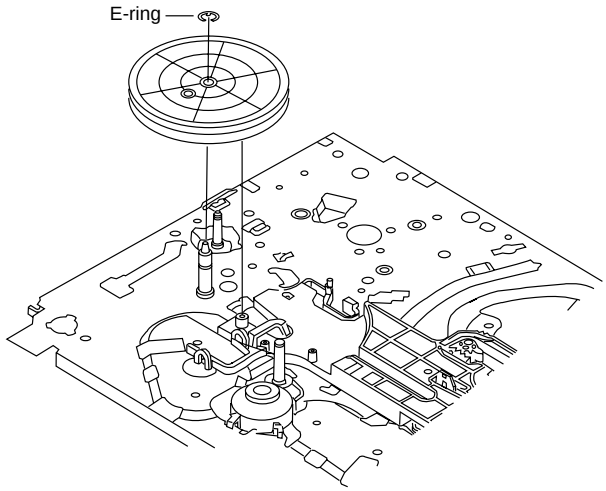


Figure 4-38-1.

4. Adjust the master cam and pinch drive cam, fix the synchro gear in correct position.

Note:
See the figure below for the phase matching between the master cam synchro gear and pinch drive cam.

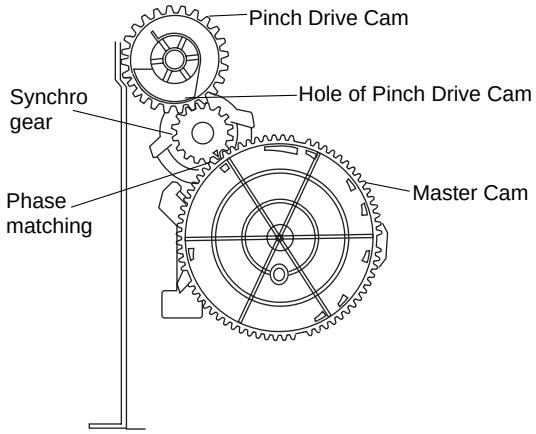


Figure 4-38-2.

4-24 REPLACEMENT OF LOADING MOTOR

- **Removal**

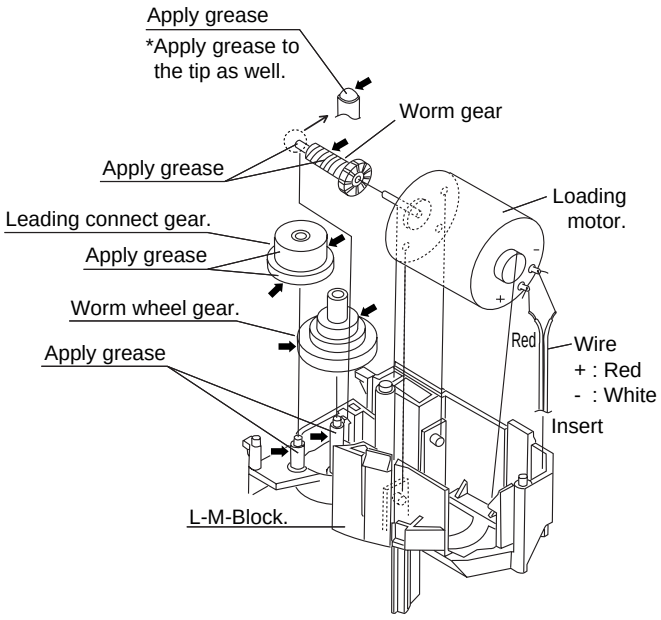


Figure 4-39.

- **Replacement**

Remove the loading motor, and install the replacement loading motor as shown below.

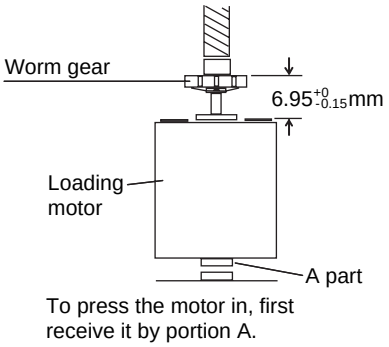
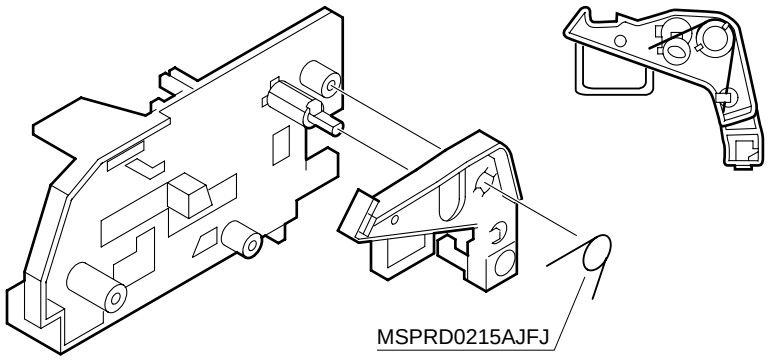


Figure 4-40.

The loading motor pressing-in must be less than 196N (20 kgf).
Adjust the distance between motor and pulley to 6.95 $^{+0}_{-0.15}$mm.

4-25 ASSEMBLY OF CASSETTE HOUSING

1. Proof lever Proof lever spring and Holder R



*Proof lever spring fixing direction designated.

Figure 4-41.

2. 0pen lever, Sensor Plate and Frame R

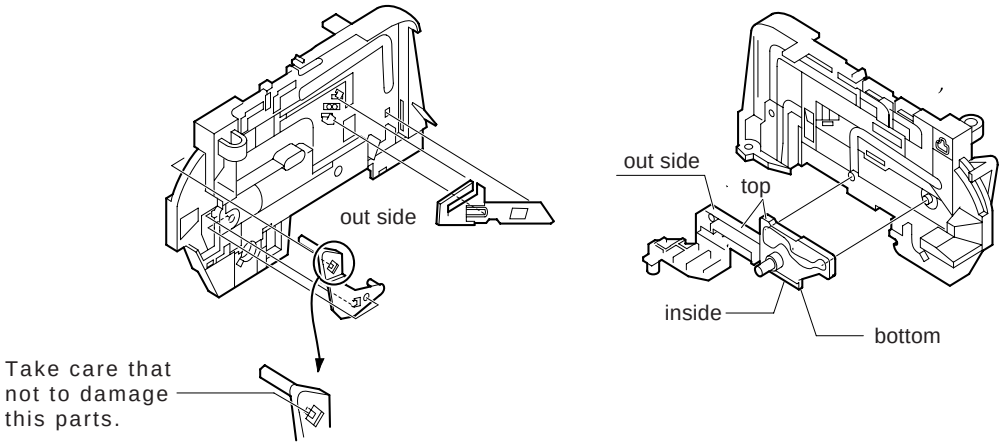


Figure 4-42.

3. Spring to Drive Arm R

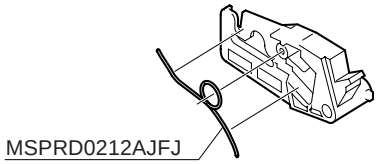


Figure 4-43.

4 Frame R, Frame L, Drive Arm R, Drive Arm L, Upper Plate.

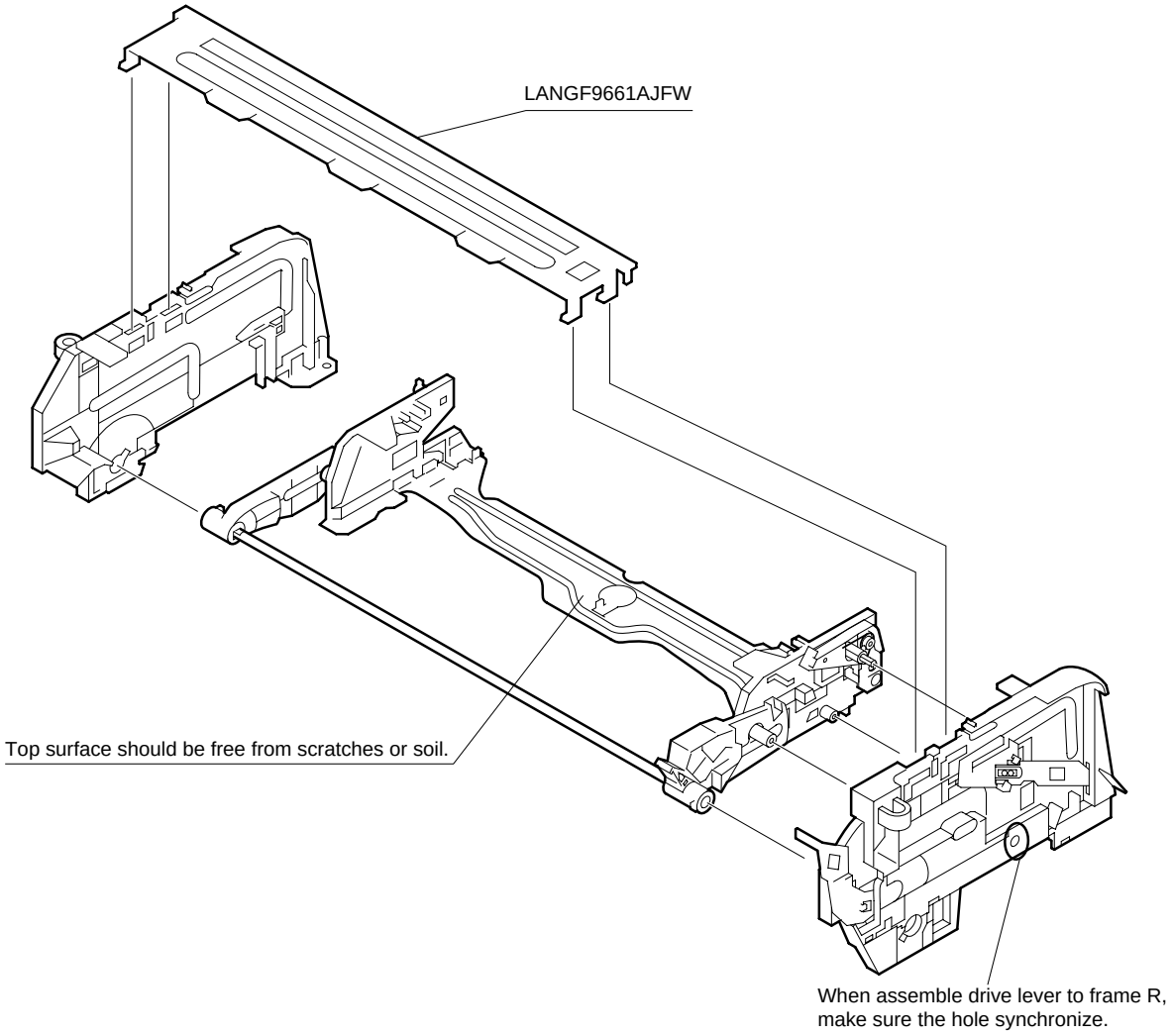


Figure 4-44.

5. ELECTRICAL ADJUSTMENT

Notes:

- Before the adjustment:
  Electrical adjustments discussed here are often required after replacement of electronic components and mechanical parts such as video heads.
  Check that the mechanism and all electric components are in good working condition prior to the adjustments, otherwise adjustments can not be completed.

- Instruments required:
  ◎Colour TV monitor
  ◎Dual-trace oscilloscope
  ◎ Alignment tape
  ◎Blank video cassette tape
  ◎DC voltmeter
  ◎Screwdriver for adjustment

※Servicing precautions
When the IC710 (E^2PROM) has been replaced, make the following reprogramming. Depending on models, the IC710 (E^2PROM) has been factory-adjusted for it's memory function.
It's therefore necessary to reprogram the memory function for the model in question.
Note that the servo circuit requires readjustments for the head switching point, slow and still modes.

- **Location of controls and test points**

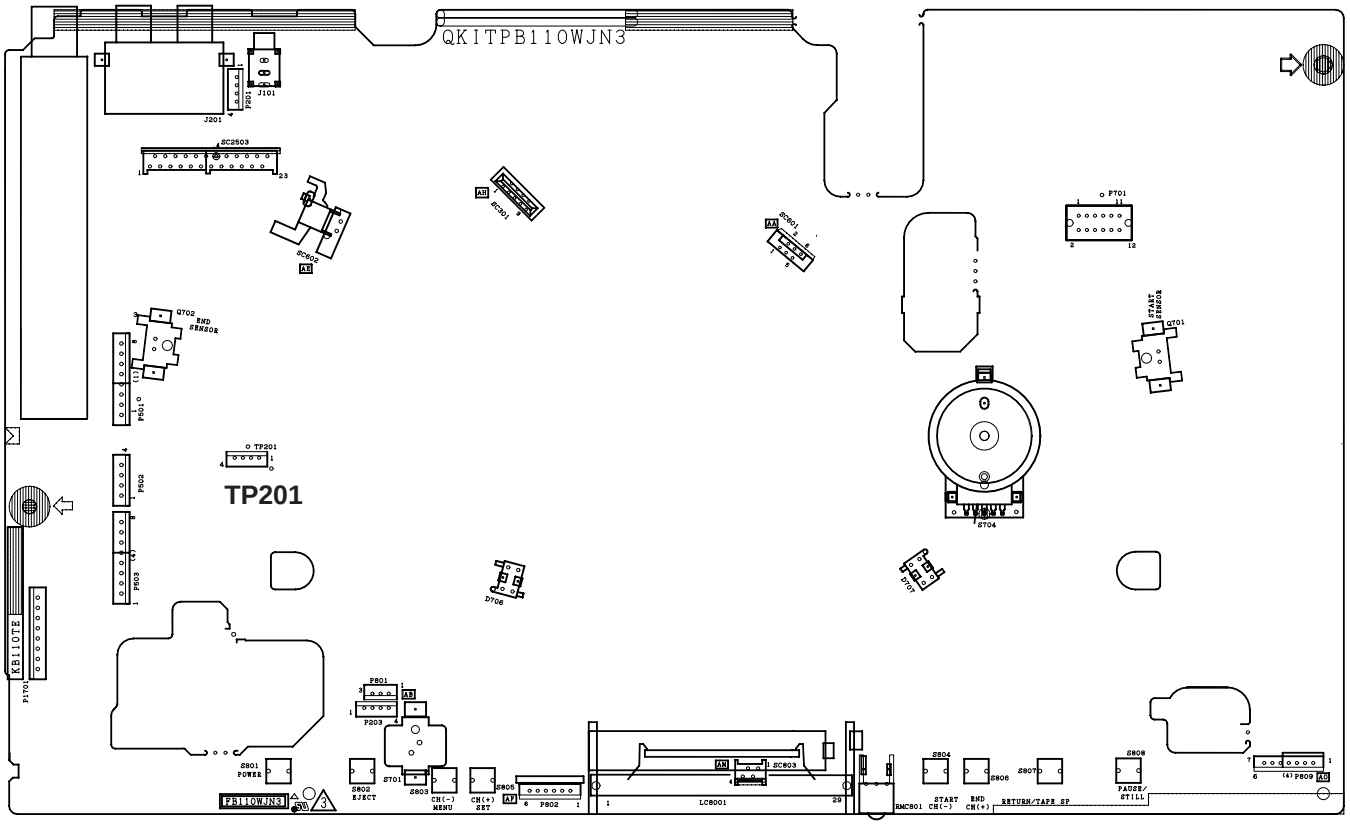


Figure 5-1.

SERVO CIRCUIT ADJUSTMENT

ADJUSTMENT OF HEAD SWITCHING POINT

Measuring instrument	Dual-trace oscilloscope Colour TV monitor
Mode	Playback
Cassette	Alignment tape MODEL / Alignment tape AA370 / VROCBZF AA350/352/350 / VROBBZG AA550/560/570 / VROFBZD
Test point	Pin(2) of TP201 (H.SW.P.) to CH-1, VIDEO OUT jack to CH-2 (CH-1 trigger slope switch at (+), Internal trigger at CH-1 side.)
Specification	6.5 ± 0.5H (lines)

1. Remove the front panel and play the alignment tape. (VROFBZD)
2. Get TP801 short circuited or press "TEST" key (47H) at universal remote control to call the Test Mode. (LCD will blinking as tracking goes to center)
3. Press "PLAY". Auto PG Mode will be ON and playback mark " ▶ " blinking.
4. Press "STOP". " ▶ " blinking stops and auto adjustment finished.
5. Check that V-Sync is 6.5 ± 0.5H and the waveform is as shown in Figure 5-2.

Note:
For manual PG adjustment, press FF or REW at the Test Mode to set the tracking in center.

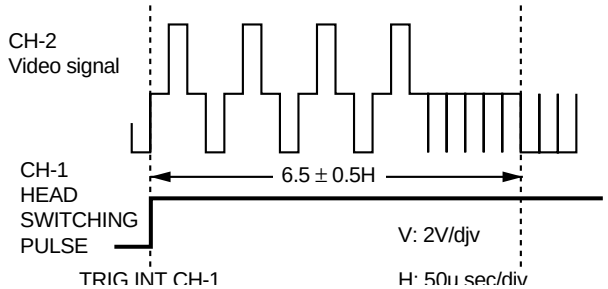


Figure 5-2.

ADJUSTMENT OF PAL SYSTEM SP/LP/EP SLOW TRACKING PRESET

Measuring instrument	Colour TV monitor
Mode	Playback
Cassette	Self-recorded tape (SP/LP/EP mode)(See Note below)
Control	Tracking control buttons (▲) or (▼)
Specification	Minimized noise on monitor screen

Note:
① For model VC-AA350, VC-AA352W and VC-AA360, the following adjustment shall be made for LP/EP mode. For SP mode ignore.
② For model VC-AA370, the following adjustment shall be made only for SP mode due to don't have LP/EP mode.

1. Have the unit to receive a good TV broadcast or feed a video signal to the VIDEO IN jack. (See note ② below)
2. Set the tape speed in SP mode by using the remote control and record the signal on tape.
3. Rewind and play the tape where signal was recorded in above step.
4. Press the SLOW button on the remote control, and playback the recorded portion in the slow mode.
5. Make for a moment short-circuit TP801, located at the front side on the main PWB. Be sure that all the LCD display light up when press the TEST mode.
6. Look at the monitor screen and adjust the (▲) or (▼) TRACKING buttons until there is minimum or no noise appear on the screen.
7. Press the STOP button to return to normal mode.
8. Play the tape a few seconds then press the SLOW button again and make sure there is minimum or no noise on the screen.(For the LP/EP mode there are the same adjustmet as SP mode.)

Notes:
① Self-recorded tape means a cassette whose program was recorded by the unit being adjusted.
② The TV program will not be recoded if RCA or 21pin plugs are pluged in the AUDIO/VIDEO input terminals.
③ The tracking control is enabled with the (▲)/(▼) button.

ADJUSTMENT OF PAL SYSTEM FV (False Vertical Sync) OF STILL PICTURE

Measuring instrument	Colour TV monitor
Mode	Playback still
Cassette	Self-recorded tape (SP/LP/EP mode) (See Note below ①)
Control	Tracking control buttons (▲) or (▼)
Specification	No vertical jitter of picture

1. Play a cassette which was recorded by the unit in SP mode.
2. Press the PAUSE/STILL button to freeze the picture.
3. Adjust (▲) or (▼) TRACKING buttons until the vertical jitter of the picture minimized.
4. Play and freeze the self-recorded tape in SP mode and make sure vertical jitter of the picture is not noticeable.(For the LP/EP mode adjustment is the same as at SP mode.)

Note:

① Self-recorded tape is a cassette which program was recorded by the unit being adjusted.
② The tracking control is enabled with the (▲)/(▼) button.

ADJUSTMENT OF NTSC SYSTEM SP/EP SLOW TRACKING PRESET

Measuring instrument	Colour TV monitor
Mode	Playback
Cassette	Self-recorded tape (SP/EP mode)(See Note below)
Control	Tracking control buttons (▲) or (▼)
Specification	Minimized noise on monitor screen

Note:

① For model VC-AA350, VC-AA352W and VC-AA360, the following adjustment shall be made for EP mode. For SP mode ignore.
② For model VC-AA370, the following adjustment shall be made only for SP mode due to don't have EP mode.

1. Have the unit to receive a good TV broadcast or feed a video signal to the VIDEO IN jack. (See note ② below)
2. Set the tape speed in SP mode by using the remote control and record the signal on tape.
3. Rewind and play the tape where signal was recorded in above step.
4. Press the SLOW button on the remote control, and playback the recorded portion in the slow mode.
5. Make for a moment short-circuit TP801, located at the front side on the main PWB.
   Be sure that all the LCD display light up when press the TEST mode.
6. Adjust the (▲) or (▼) TRACKING buttons until there is minimum or no noise appear on the screen.
7. Press the STOP button to return to normal mode.
8. Play the tape a few seconds then press SLOW button again and make sure there is minimum or no noise on the screen.(For the E P mode adjustment is the same as SP mode.)

Notes:

① Self-recorded tape is a cassette which program was recorded by the unit being adjusted.
② The TV program will not be recoded if RCA or 21pin plugs are playyed in the AUDIO/VIDEO input terminals.
③ The tracking control is enabled with the (▲)/(▼) button.

ADJUSTMENT OF NTSC SYSTEM FV (False Vertical Sync) OF STILL PICTURE

Measuring instrument	Colour TV monitor
Mode	Playback still
Cassette	Self-recorded tape (SP/EP mode) (See Note below ①)
Control	Tracking control buttons (▲) or (▼)
Specification	No vertical jitter of picture

1. Play a cassette which was recorded by the unit in SP mode.
2. Press the PAUSE/STILL button to freeze the picture.
3. Adjust (▲) or (▼) TRACKING buttons until the vertical jitter of the picture minimized.
4. Play and freeze the self-recorded tape in SP mode and make sure vertical jitter of the picture is not noticeable.(For the EP mode adjustment is the same as SP mode.)

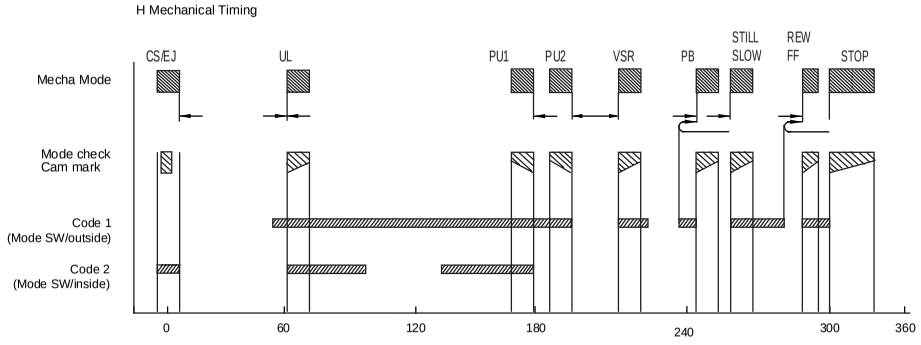
Note:

① Self-recorded tape is a cassette which program was recorded by the unit being adjusted.
② The tracking control is enabled with the (▲)/(▼) button.

6. MECHANISM OPERATION FLOWCHART AND TROUBLESHOOTING GUIDE

MECHANISM OPERATION FLOWCHART

* This flowchart describes the outline of the mechanism's operation, but does not give its details.

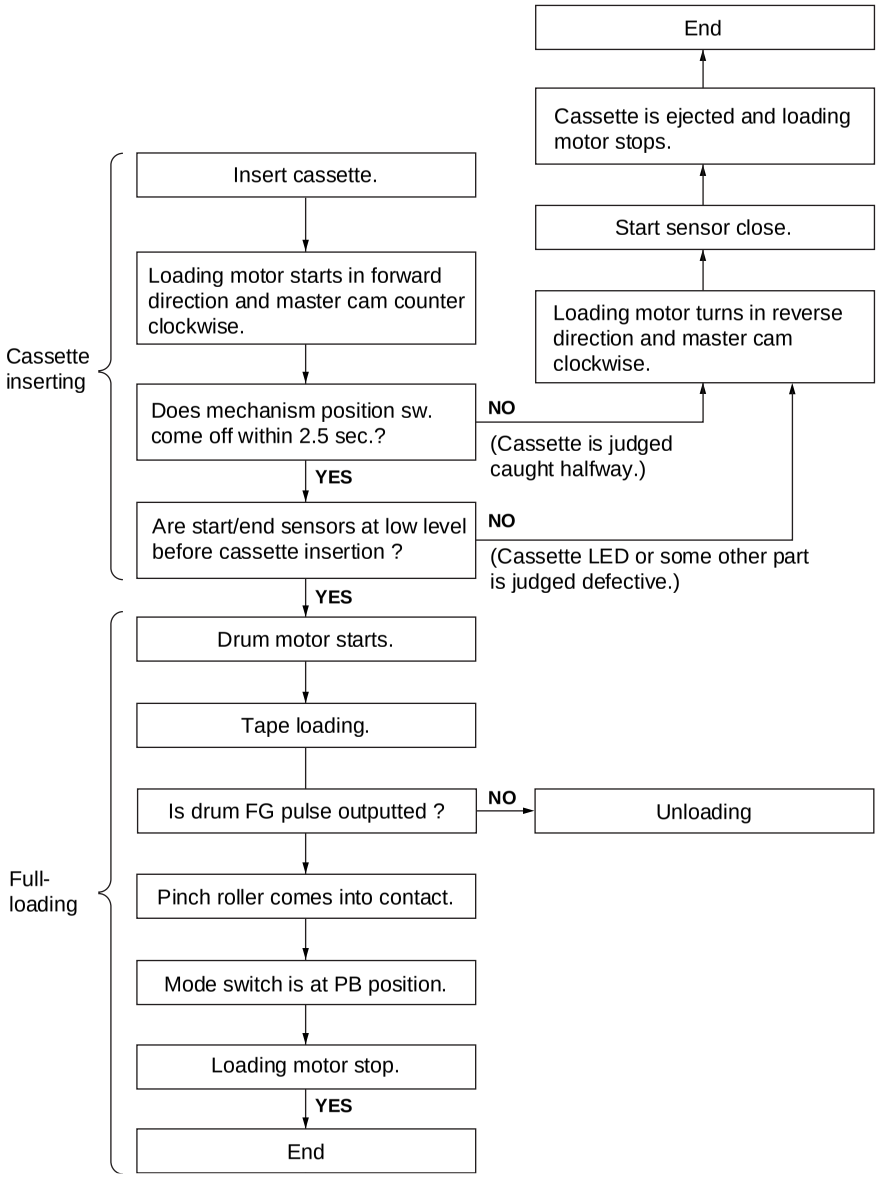


	EJ					UL				PU		PU2		VSR			PB	SLW			FF		STP
Code 1	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	0	1	0	0	1	1	0	1	1	0
Code 2	1	1	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S Sensor	1	1	0	1	1 or 0																				

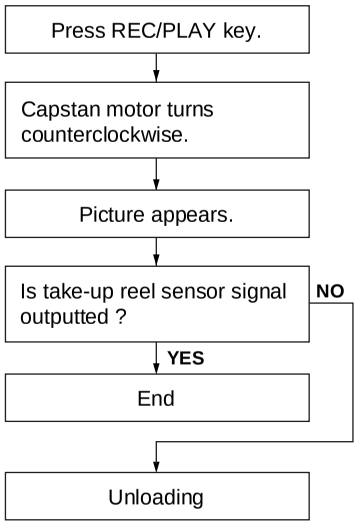
S Sensor: Open / Close

Mecha Mode	Code 2 (Mode SW/inside)	Code 1 (Mode SW/outside)
CS/EJ	1	0
ULD	1	1
PU1	1	1
PU2	0	1
VSR	0	1
PB	0	0
SLOW	0	1
FF	0	1
STOP	0	0

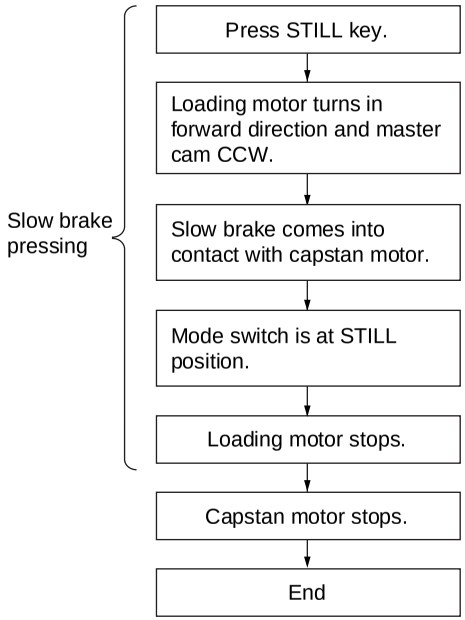
CASSETTE INSERTION → STOP



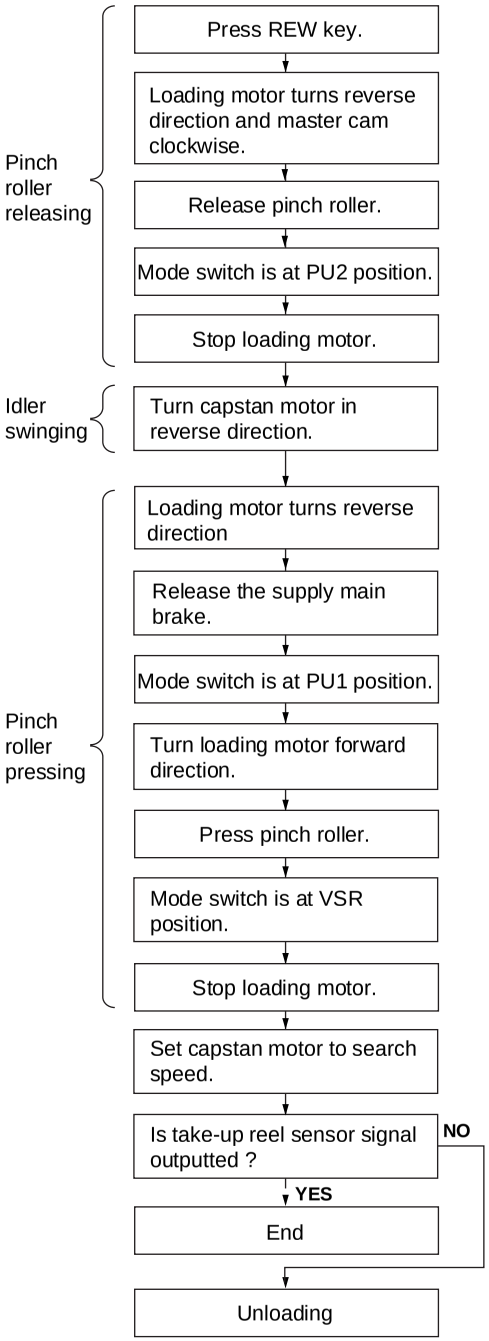
STOP → REC/PLAY



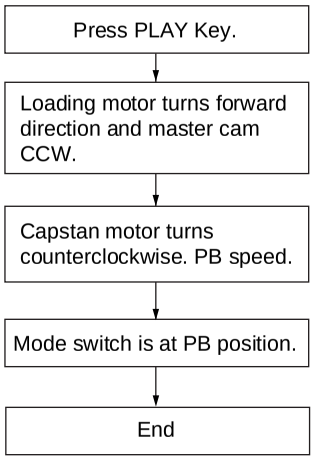
PLAY → STILL



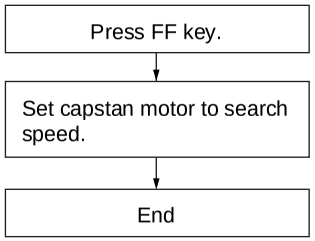
PLAY → VSR



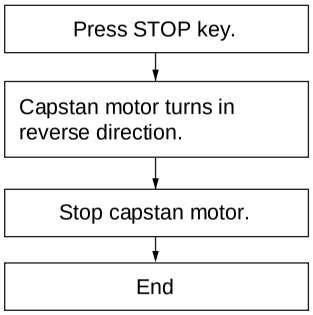
VSR → PLAY



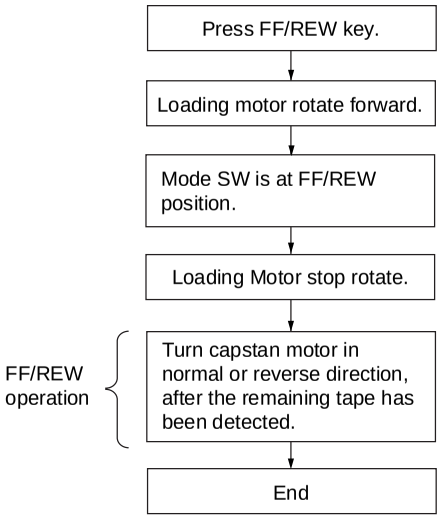
PLAY → VSF



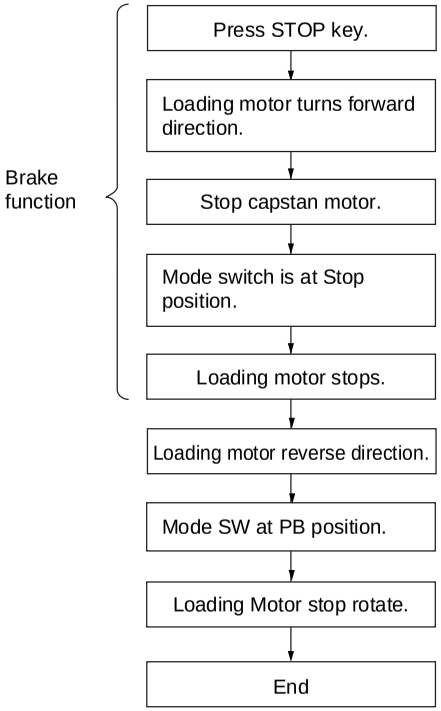
REC/PLAY → STOP



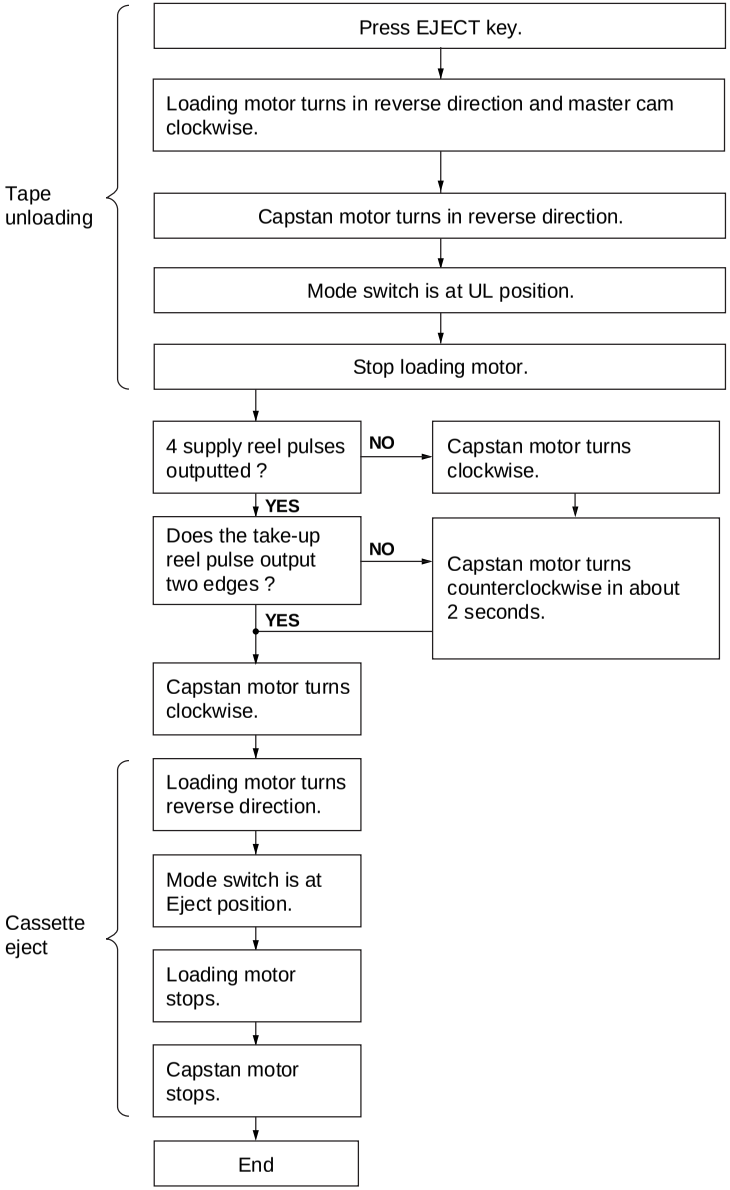
STOP → FF/REW



FF/REW → STOP

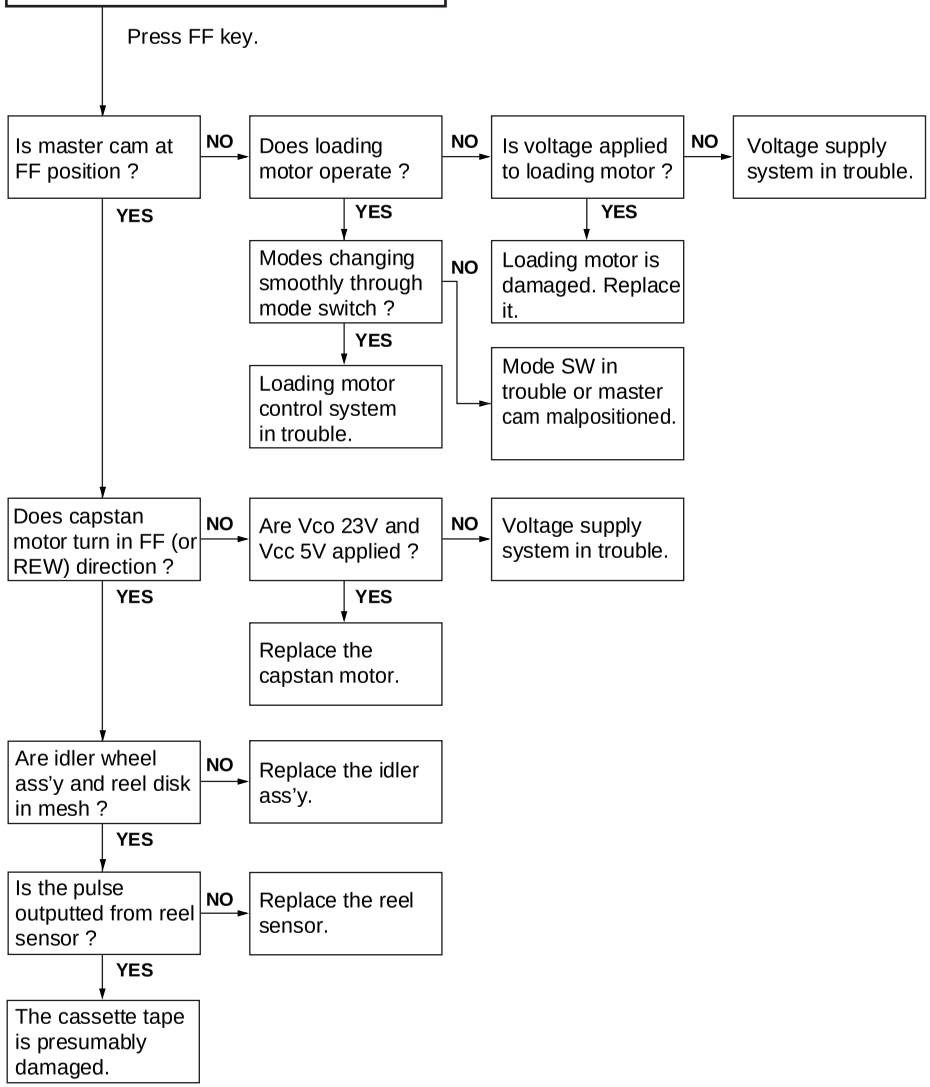


STOP → CASSETTE EJECT

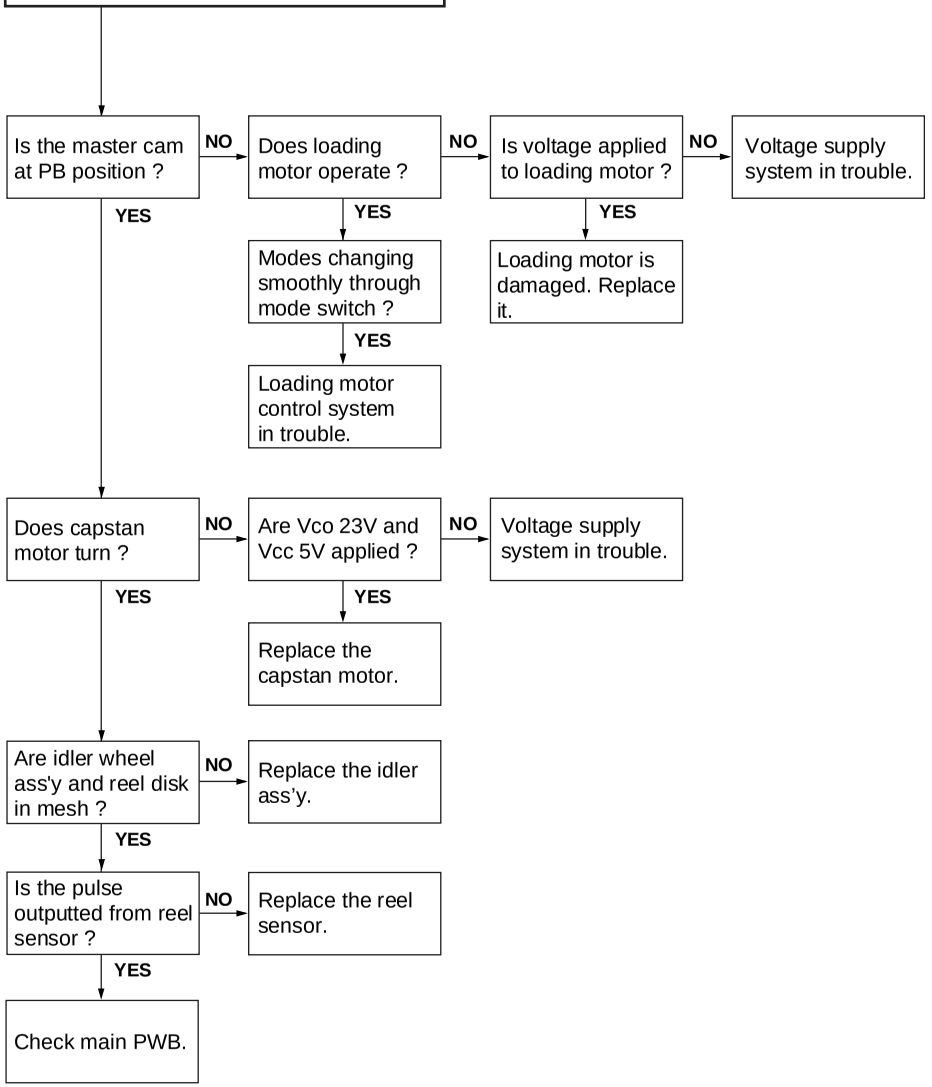


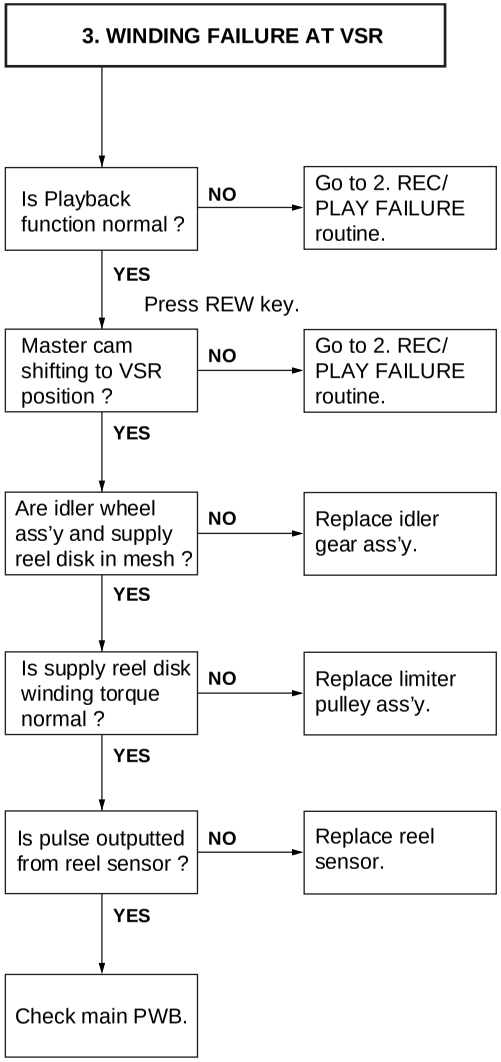
MECHANISM TROUBLESHOOTING

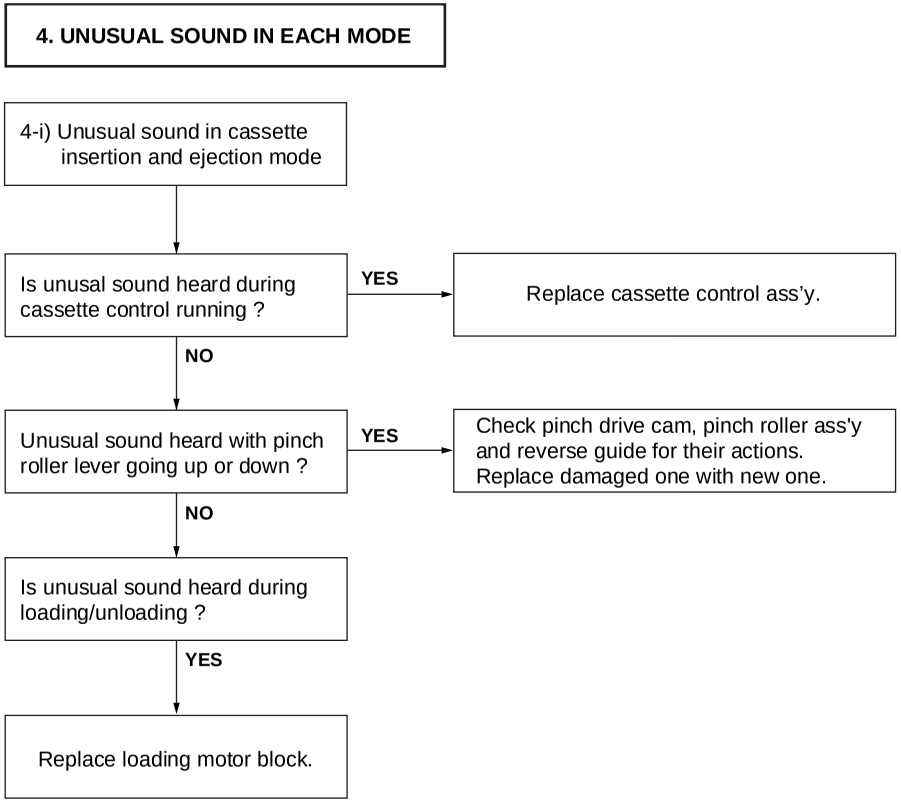
1. FF/REW FAILURE (NO TAPE WINDING)

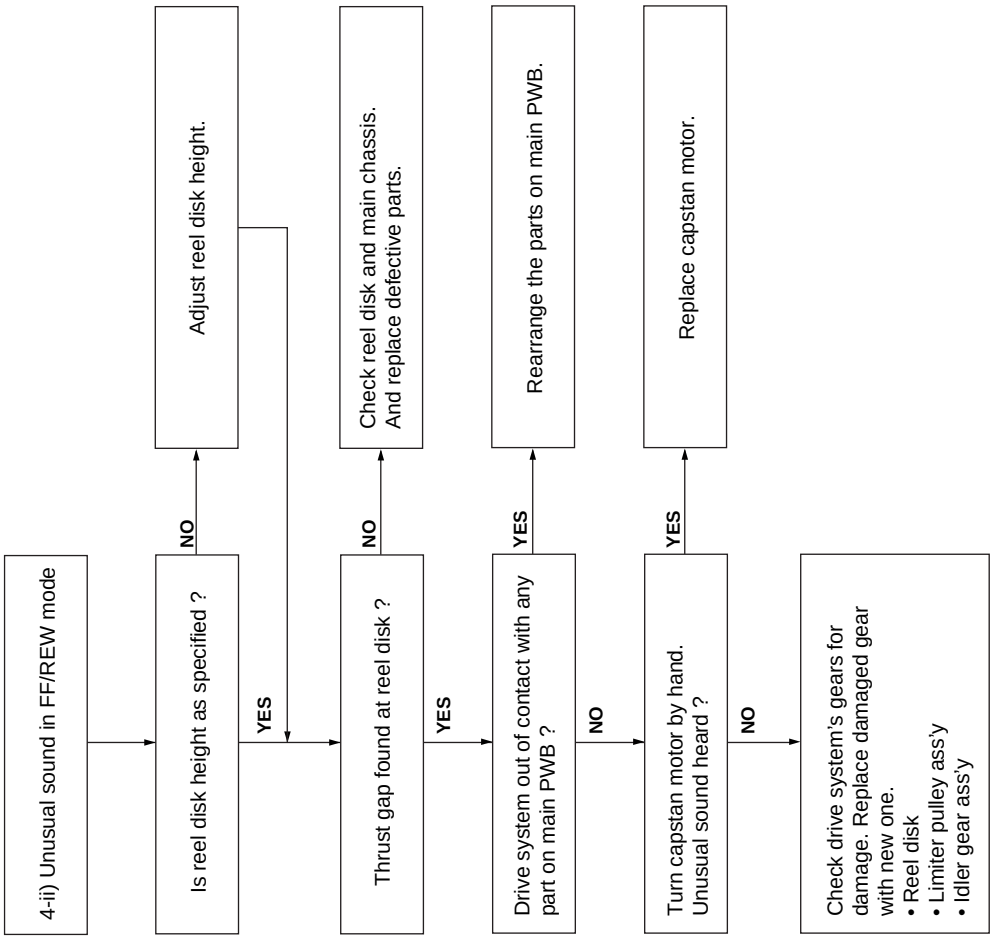


2. REC/PLAY FAILURE (MODE RELEASE)



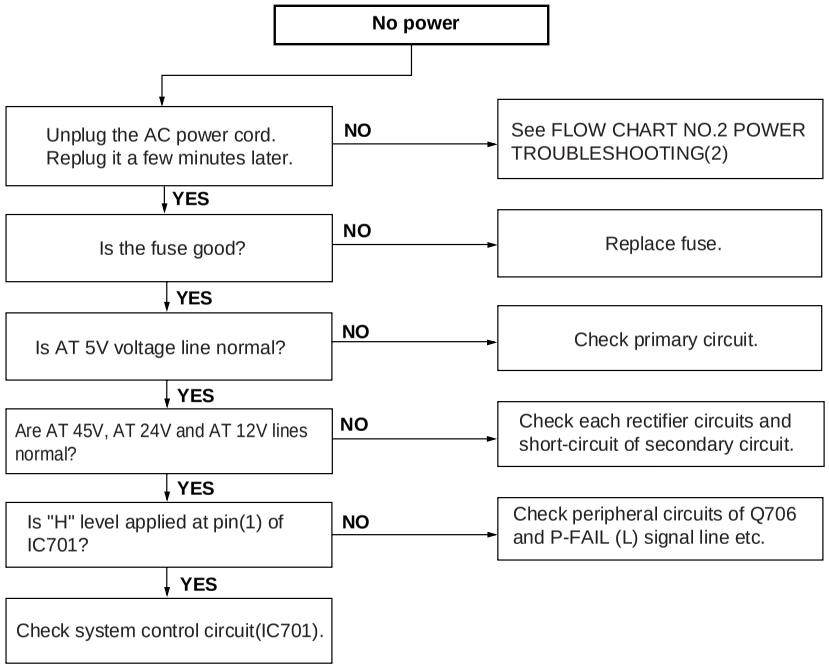

3. WINDING FAILURE AT VSR
Is Playback function normal ?
NO
Go to 2. REC/ PLAY FAILURE routine.
YES
Press REW key.
Master cam shifting to VSR position ?
NO
Go to 2. REC/ PLAY FAILURE routine.
YES
Are idler wheel ass'y and supply reel disk in mesh ?
NO
Replace idler gear ass'y.
YES
Is supply reel disk winding torque normal ?
NO
Replace limiter pulley ass'y.
YES
Is pulse outputted from reel sensor ?
NO
Replace reel sensor.
YES
Check main PWB.


4. UNUSUAL SOUND IN EACH MODE
4-i) Unusual sound in cassette insertion and ejection mode
Is unusal sound heard during cassette control running ?
YES
Replace cassette control ass'y.
NO
Unusual sound heard with pinch roller lever going up or down ?
YES
Check pinch drive cam, pinch roller ass'y and reverse guide for their actions. Replace damaged one with new one.
NO
Is unusual sound heard during loading/unloading ?
YES
Replace loading motor block.

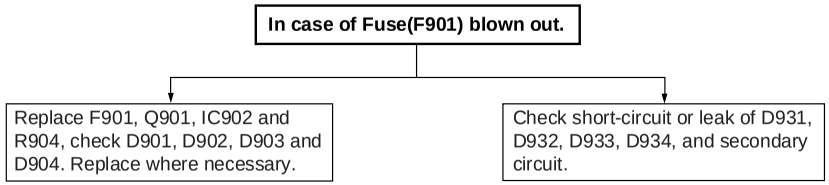

4-ii) Unusual sound in FF/REW mode
Is reel disk height as specified ?
NO
Adjust reel disk height.
YES
Thrust gap found at reel disk ?
NO
Check reel disk and main chassis.
And replace defective parts.
YES
Drive system out of contact with any part on main PWB ?
YES
Rearrange the parts on main PWB.
NO
Turn capstan motor by hand.
Unusual sound heard ?
YES
Replace capstan motor.
NO
Check drive system's gears for damage. Replace damaged gear with new one.
• Reel disk
• Limiter pulley ass'y
• Idler gear ass'y

7. TROUBLESHOOTING

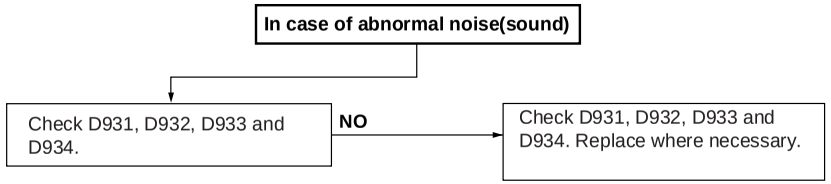
FLOW CHART NO.1 POWER TROUBLESHOOTING(1)



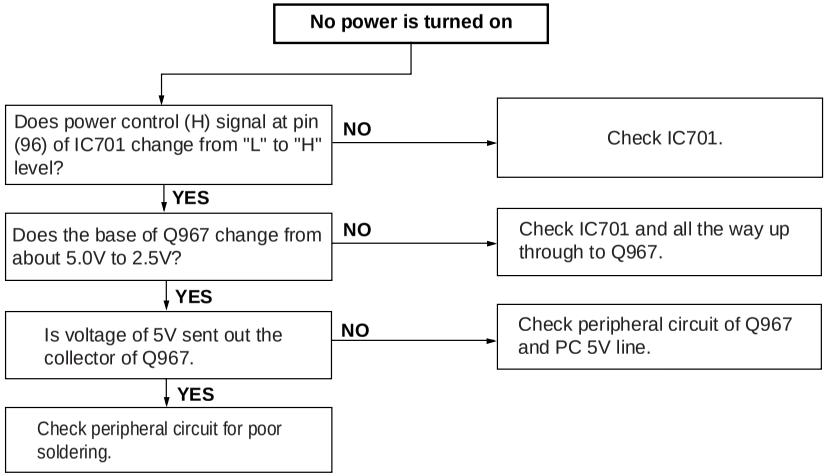
FLOW CHART NO.2 POWER TROUBLESHOOTING(2)



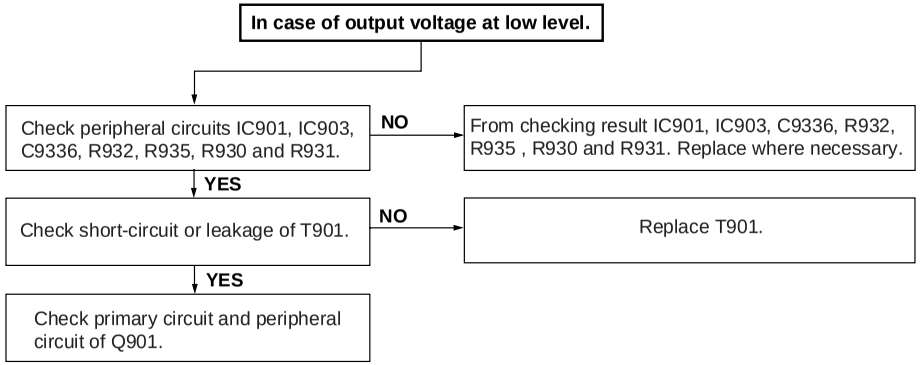
FLOW CHART NO.3 POWER TROUBLESHOOTING(3)



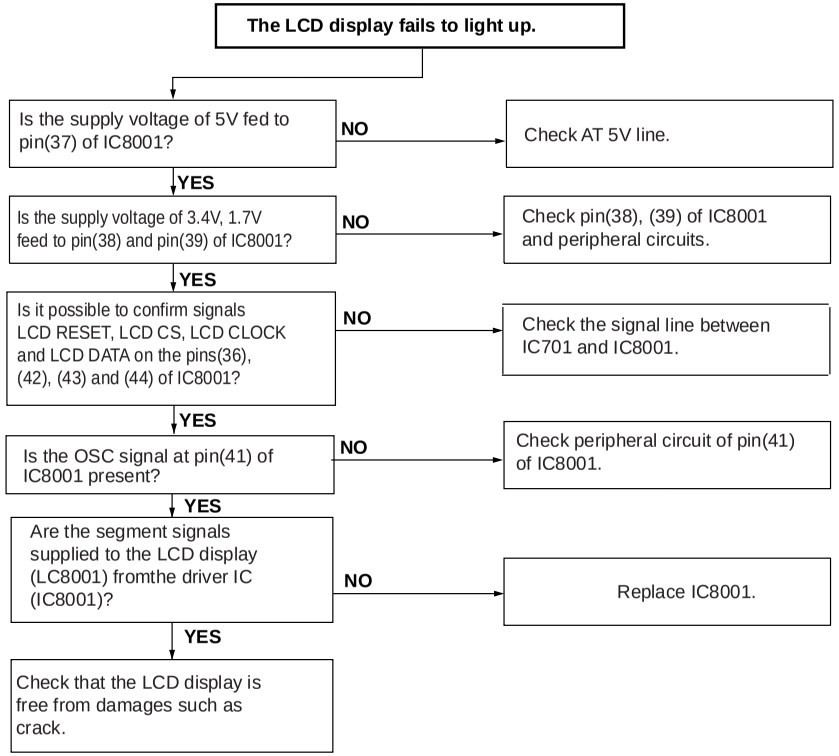
FLOW CHART NO.4 POWER TROUBLESHOOTING(4)



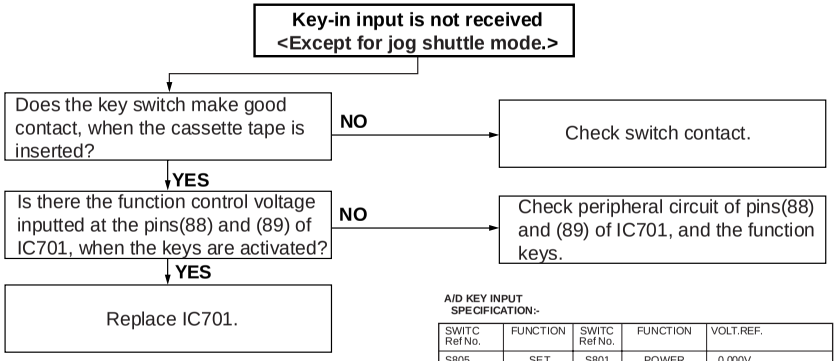
FLOW CHART NO.5 POWER TROUBLESHOOTING(5)



FLOW CHART NO. 6 TIMER TROUBLESHOOTING



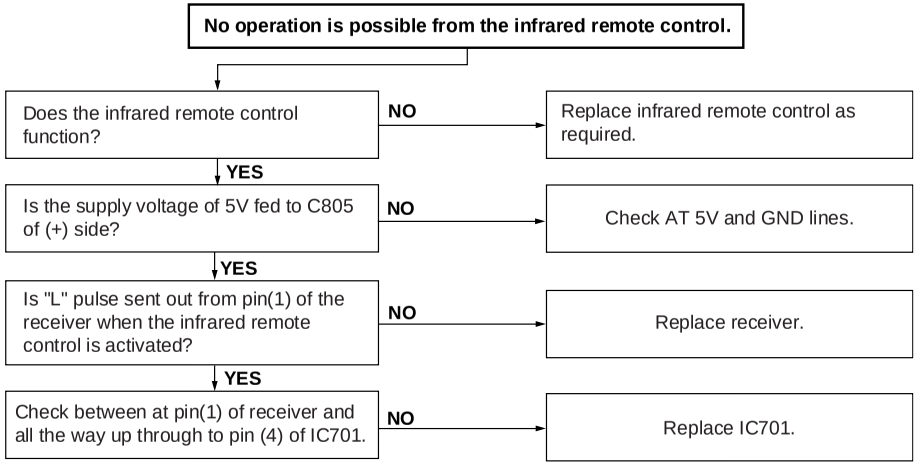
FLOW CHART NO.7 KEY CONTROL TROUBLESHOOTING



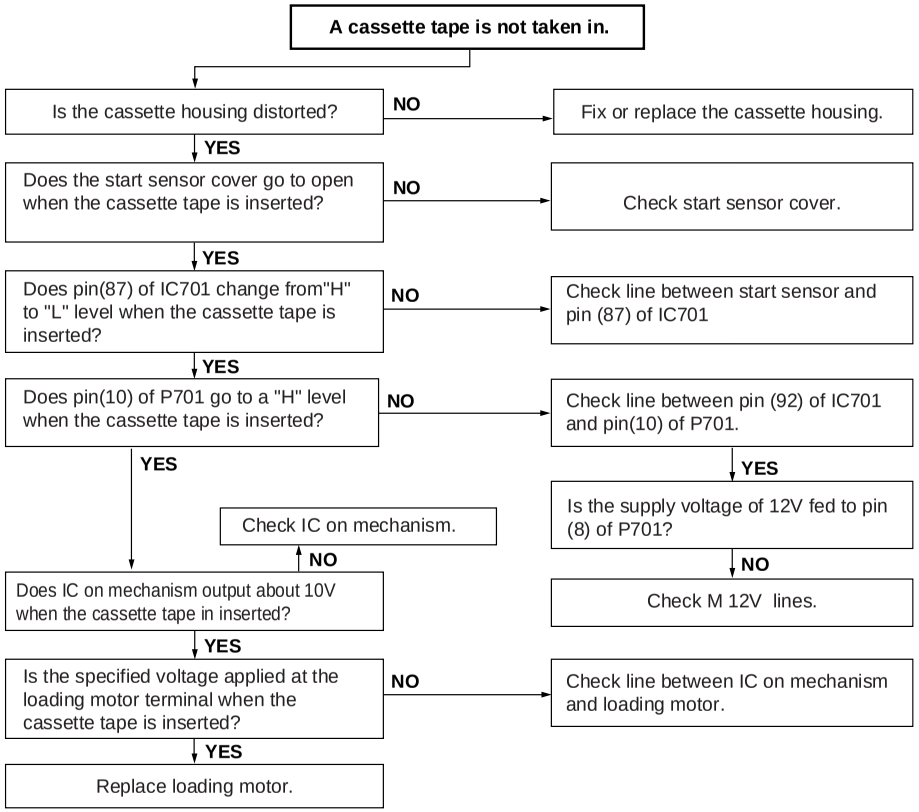
A/D KEY INPUT SPECIFICATION:-

SWITC Ref No.	FUNCTION	SWITC Ref No.	FUNCTION	VOLT.REF.
S805	SET	S801	POWER	0.000V
S806	CH(+)	S802	EJECT	0.652V
S807	T.Speed/PAUSE	S803	MENU	1.250V / 1.864V
S808	PAUSE/REC	S804	CH(-)	1.864V / 2.561V
S883	REC	S881	PLAY	2.561V
S884/S885	REW	S882	STOP	3.081V
S886/S887	FF	No Use	No Use	3.694V
No Use	No Use	TP801	TEST	3.712V
No Use	No Use	TP802	CASSETTE	4.285V
KEY-1 IN (Pin88 of IC701)		KEY-0 IN (Pin89 of IC701)		

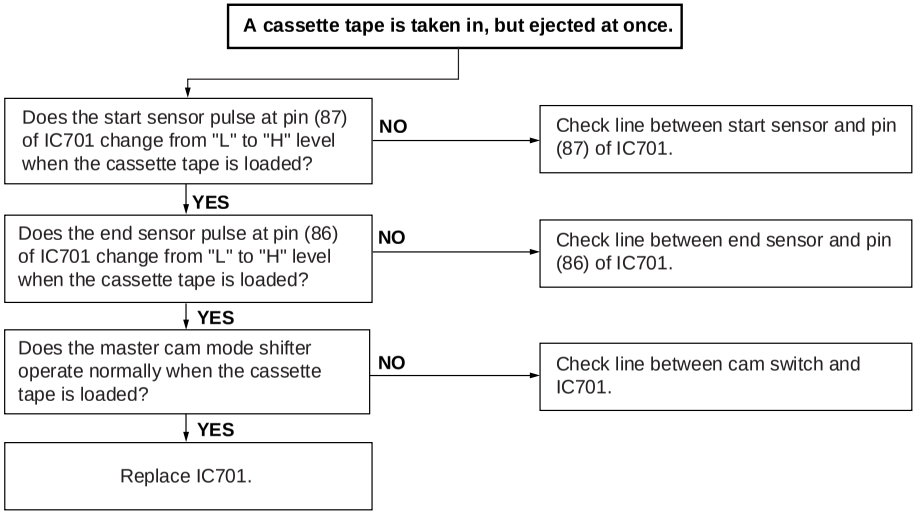
FLOW CHART NO.8 INFRARED R/C TROUBLESHOOTING



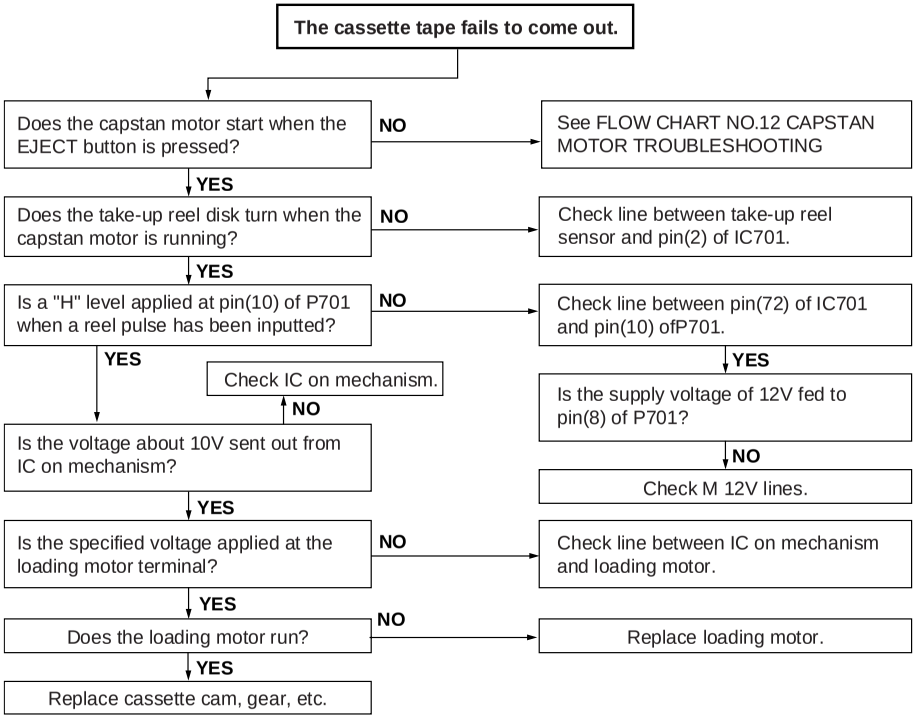
FLOW CHART NO.9 CASSETTE CONTROL TROUBLESHOOTING(1)



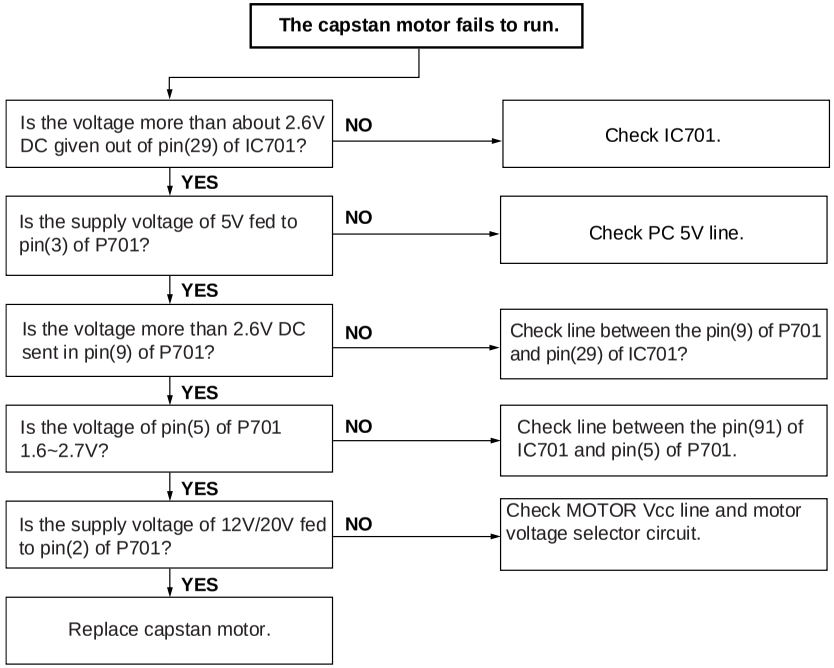
FLOW CHART NO.10 CASSETTE CONTROL TROUBLESHOOTING(2)



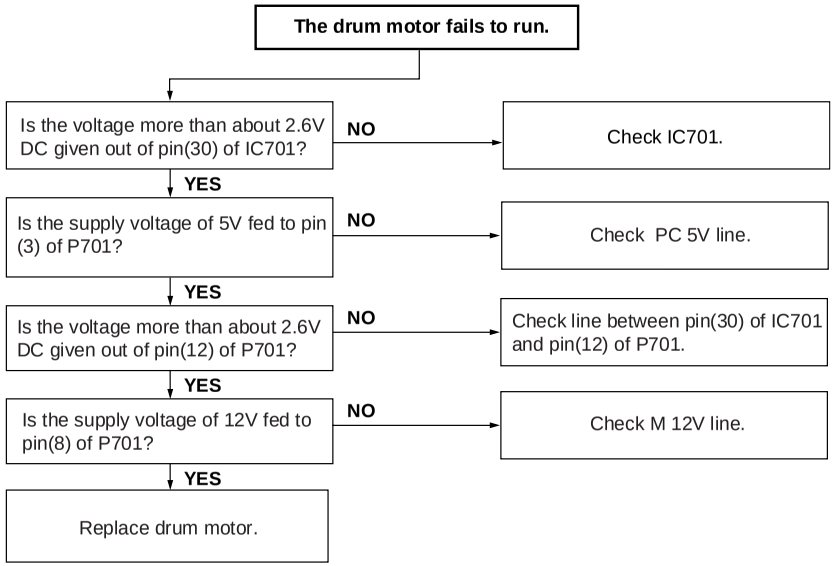
FLOW CHART NO.11 LOADING MOTOR AND EJECT TROUBLESHOOTING



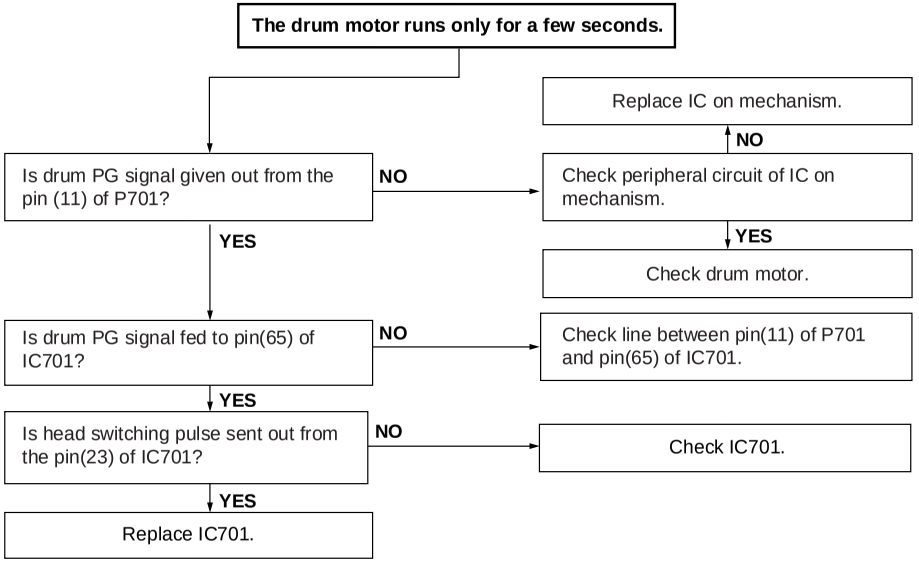
FLOW CHART NO.12 CAPSTAN MOTOR TROUBLESHOOTING



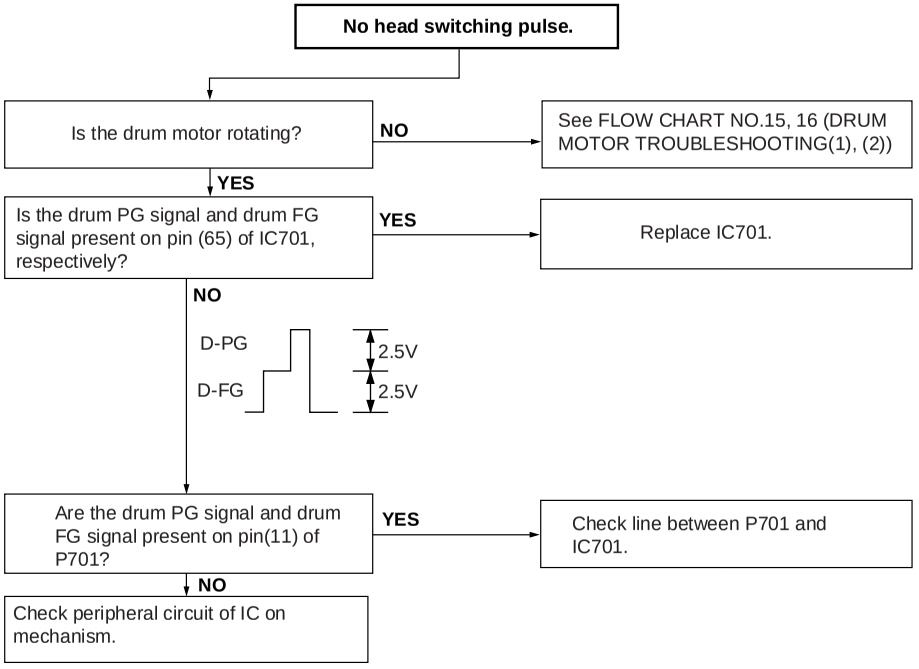
FLOW CHART NO.13 DRUM MOTOR TROUBLESHOOTING(1)



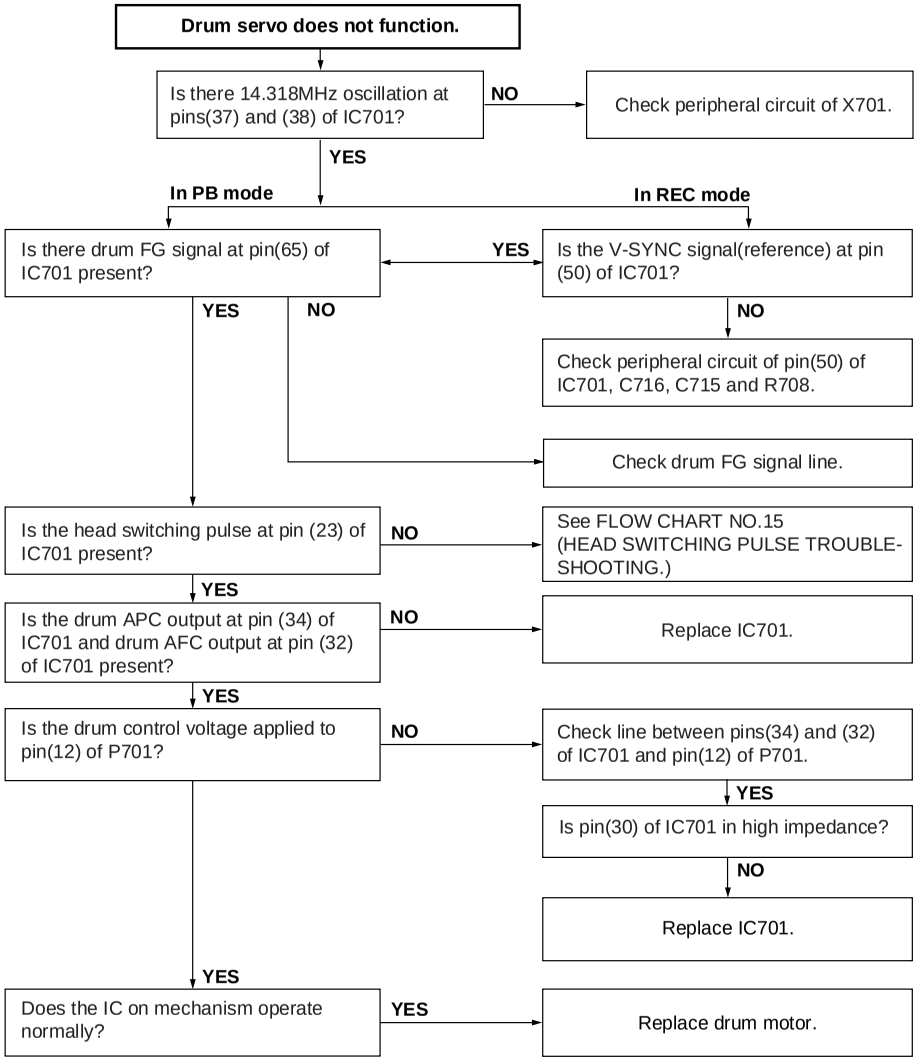
FLOW CHART NO.14 DRUM MOTOR TROUBLESHOOTING(2)



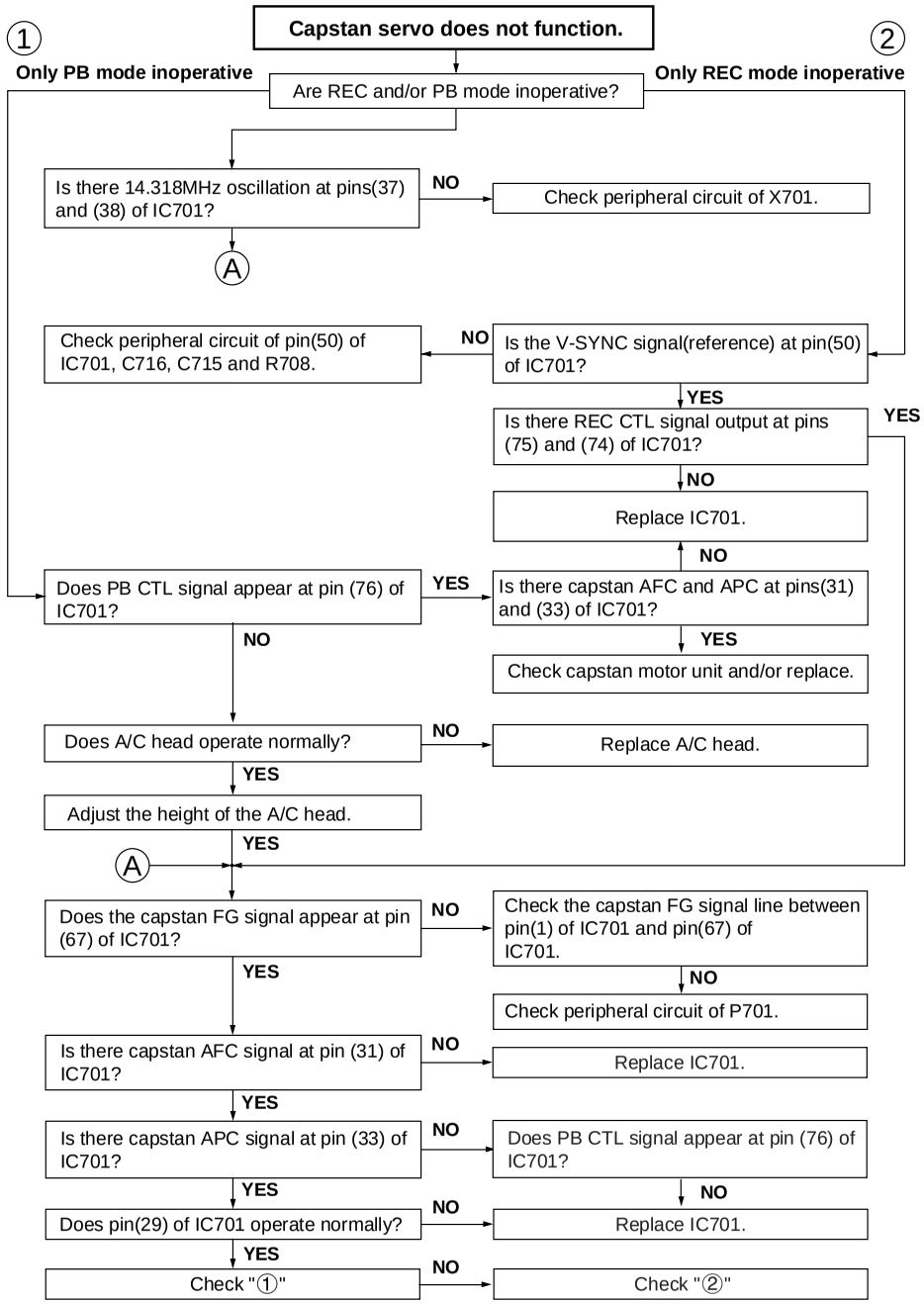
FLOW CHART NO.15 HEAD SWITCHING PULSE TROUBLESHOOTING.



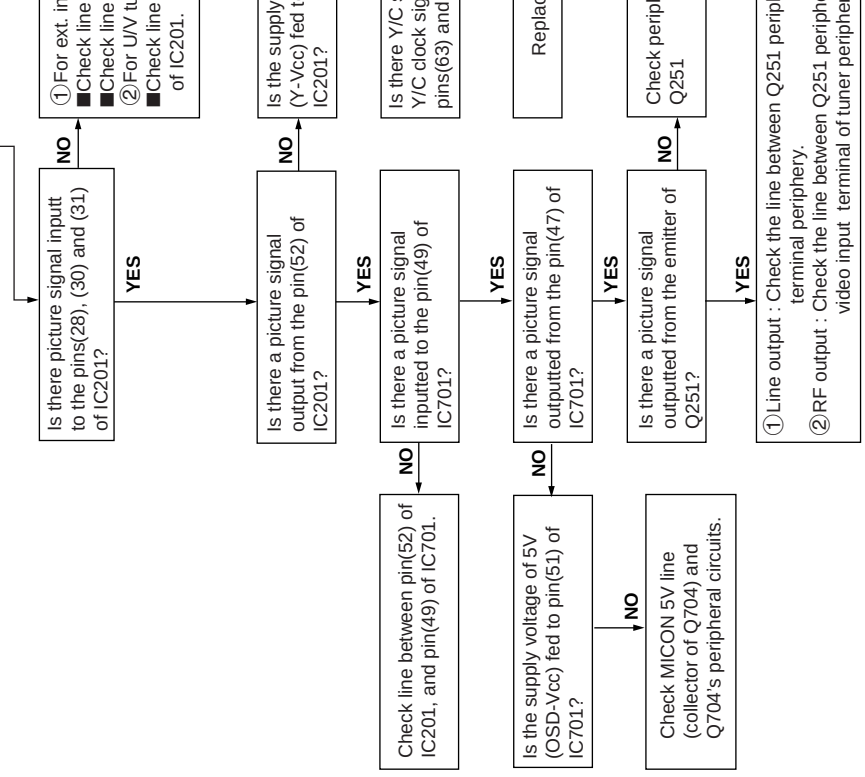
FLOW CHART NO.16 DRUM SERVO TROUBLESHOOTING



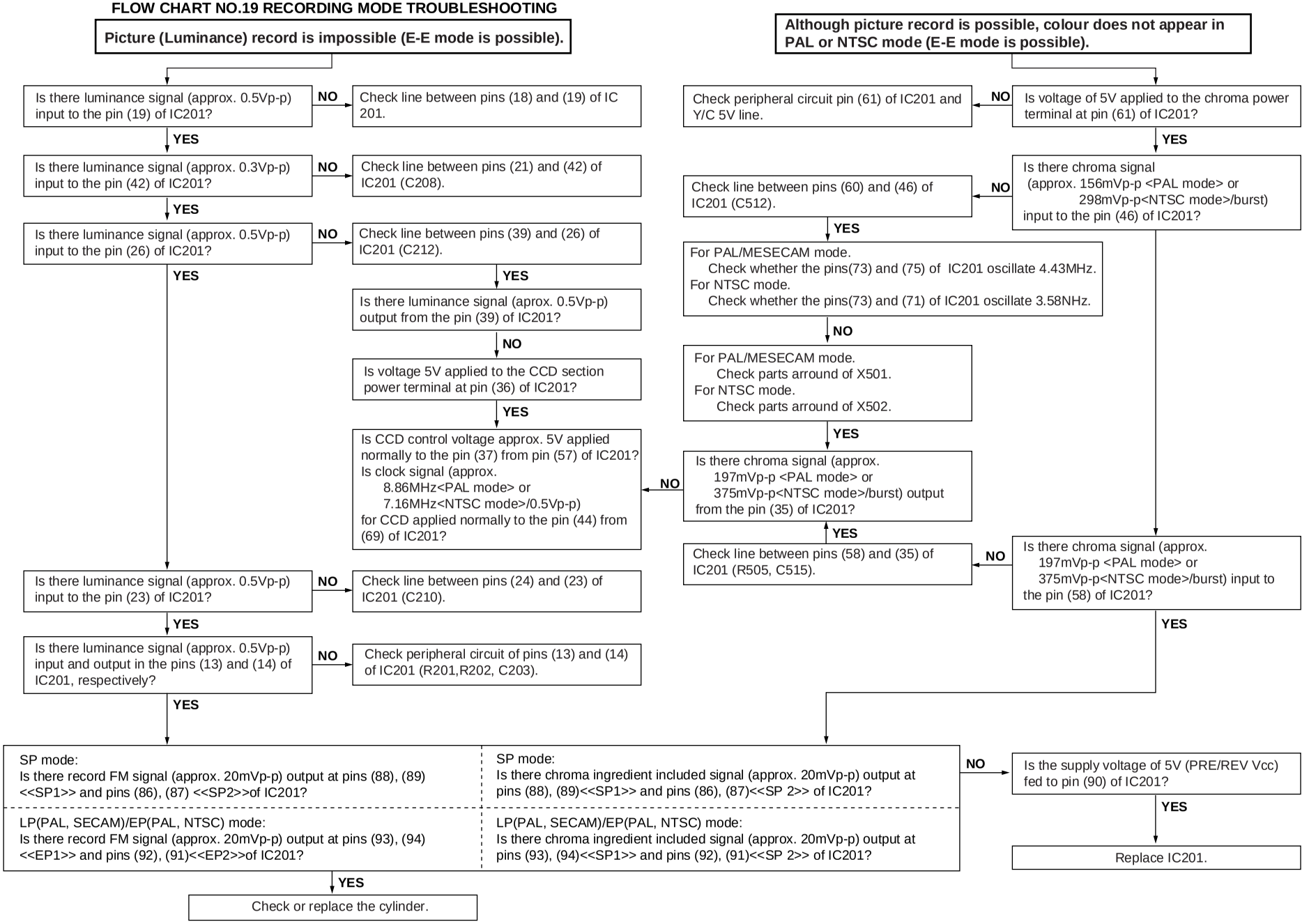
FLOW CHART NO.17 CAPSTAN SERVO TROUBLESHOOTING



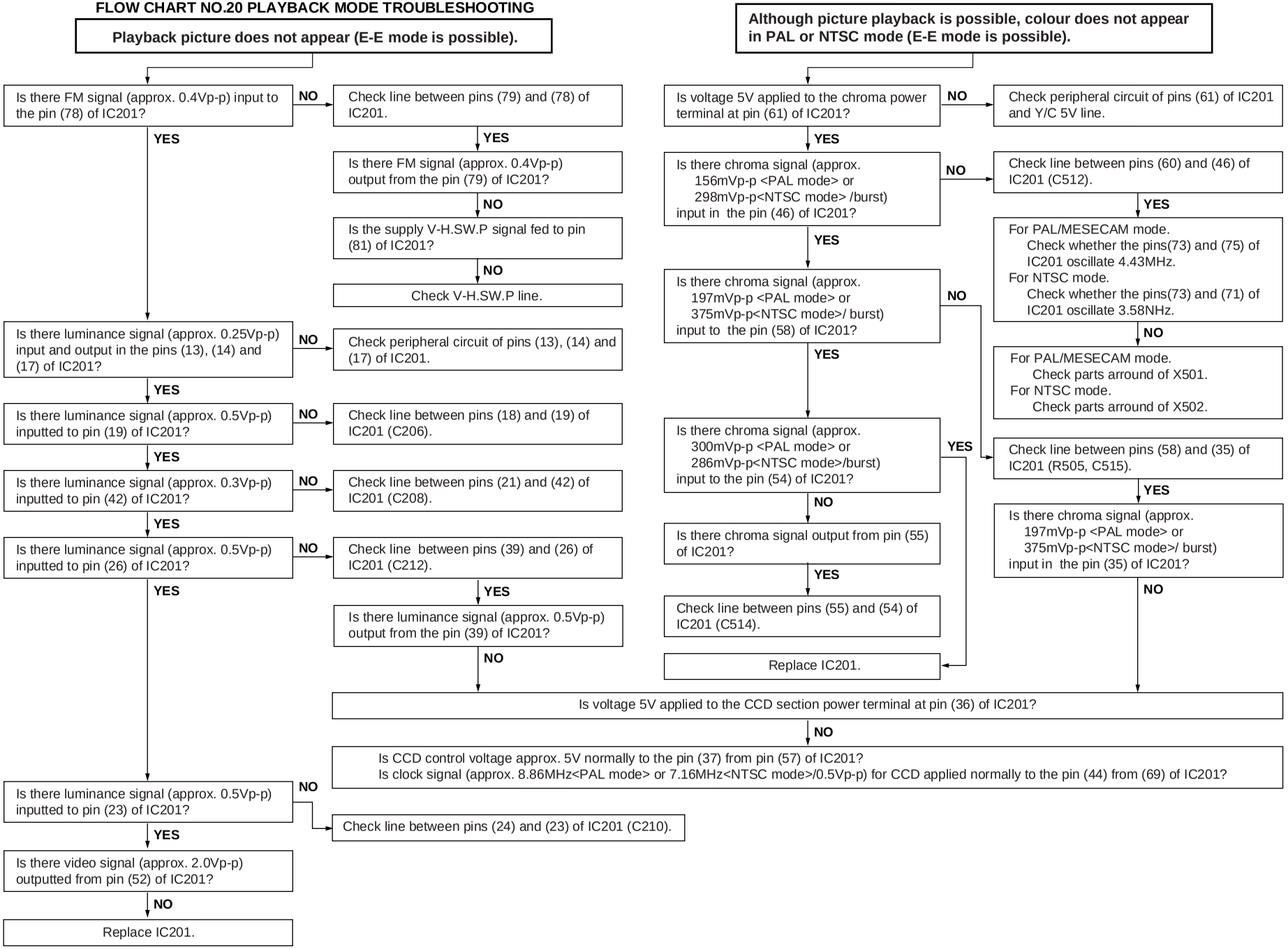
FLOW CHART NO.18 E-E MODE TROUBLESHOOTING



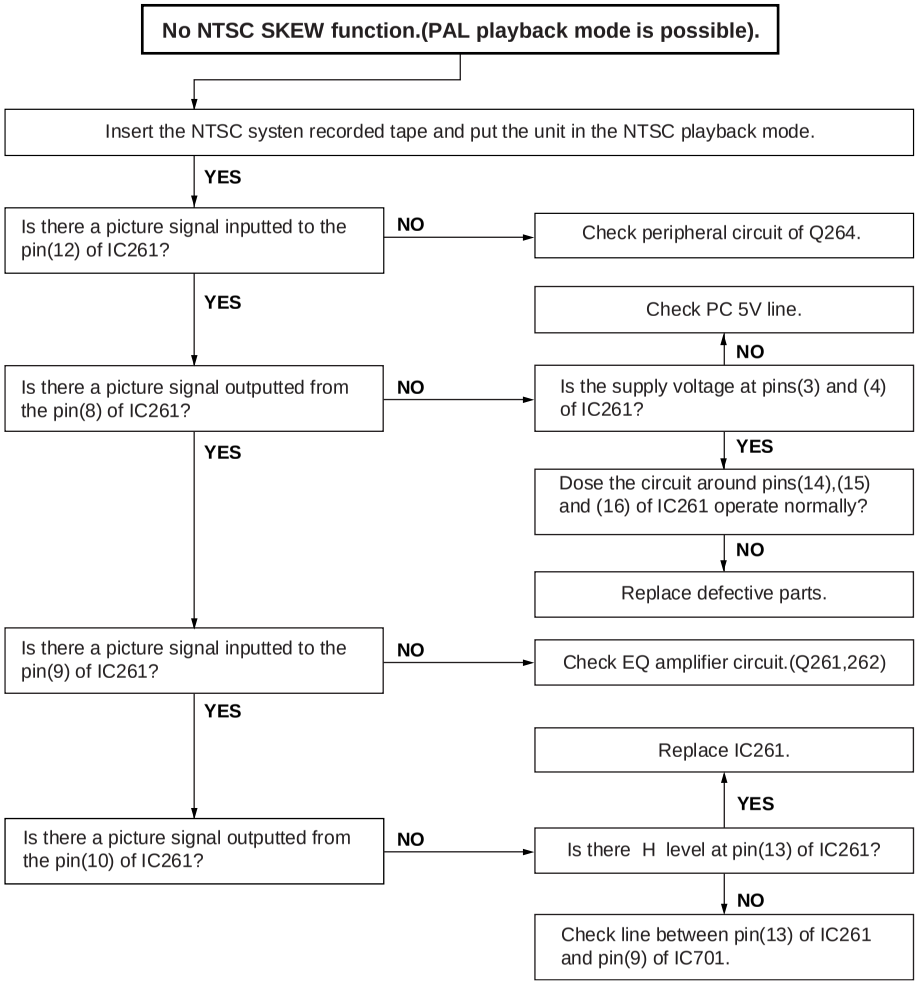
FLOW CHART NO.19 RECORDING MODE TROUBLESHOOTING



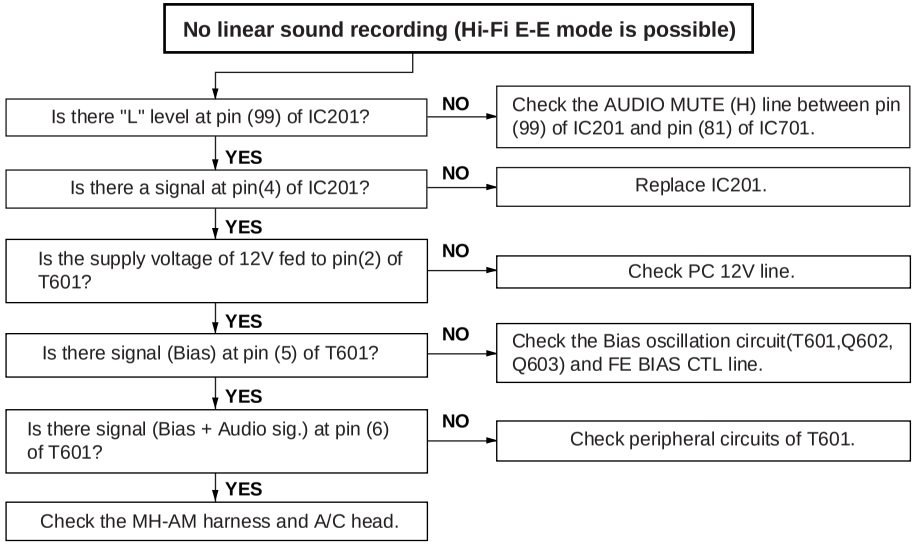
FLOW CHART NO.20 PLAYBACK MODE TROUBLESHOOTING



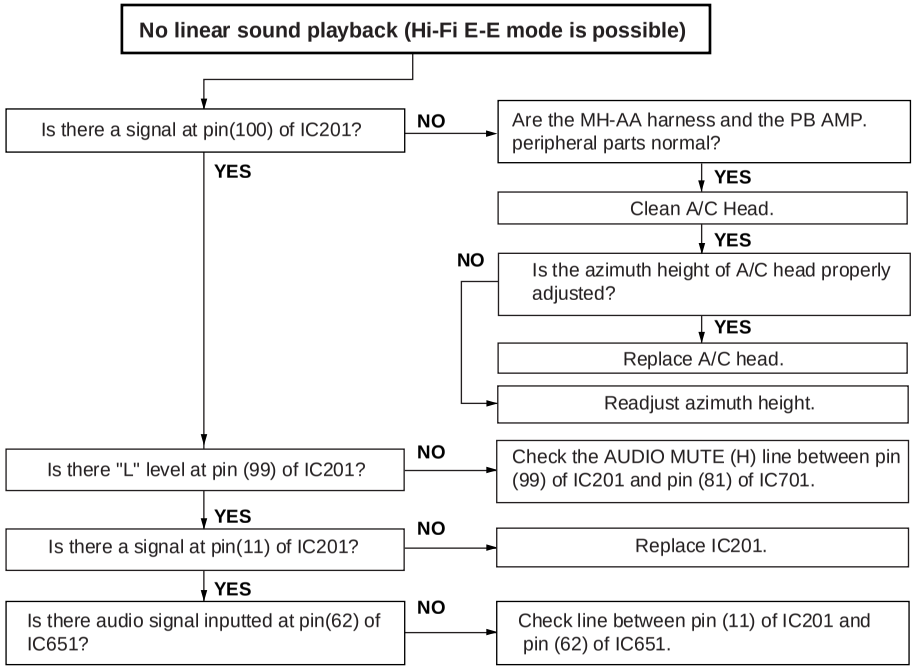
FLOW CHART NO.21 NTSC SKEW TROUBLESHOOTING



FLOW CHART NO.22 LINEAR SOUND MODE TROUBLESHOOTING (1)



FLOW CHART NO.23 LINEAR SOUND MODE TROUBLESHOOTING (2)



REPLACEMENT OF IC710(E^2PROM)

《Servicing precautions》
When the IC710(E^2PROM) has been replaced, make the following reprogramming.
Depending on models, the IC710(E^2PROM) has been factory adjusted for it's memory function.
It's therefore necessary to reprogram the memory function for the model in question.
Note that the servo circuit requires readjustments for the slow and still modes.

1. Memory function reprogramming.
   1. Check the power off.(Power is standby mode)
   2. Make for moment short-circuit test point(TP801 and TP803), located at the front side on the main PWB. Be sure that all the LCD display light up into the TEST mode.
   3. Using the CHANNEL(+) AND (–) buttons, select the right function numbers from JP0 to J39, which appear in the LCD display, referring to the E^2PROM map.
      Press the DISPLAY button to pickup the functions(ON) and the CLEAR button to discard the functions(OFF).
      DISPLAY and CLEAR buttons, are located on the remote control unit.
      - when the DISPLAY button has been pressed (ON), the memory function number starts flashing.
      - when the CLEAR button has been pressed (OFF), the memory function number lights up.

2. Memory recording preset level reprogramming.
   1. Similarly to the above step 1-1 and 2 the same operate.
   2. Using the CHANNEL (+) AND (-) buttons, select the right function numbers continued from recording preset number as has been JP0~J39, which appear in the LCD display, referring to the E^2PROM map.

3. Finally make for a moment short-circuit test point(TP801 and TP803), both located at the front side on the main PWB to clear the TEST mode.

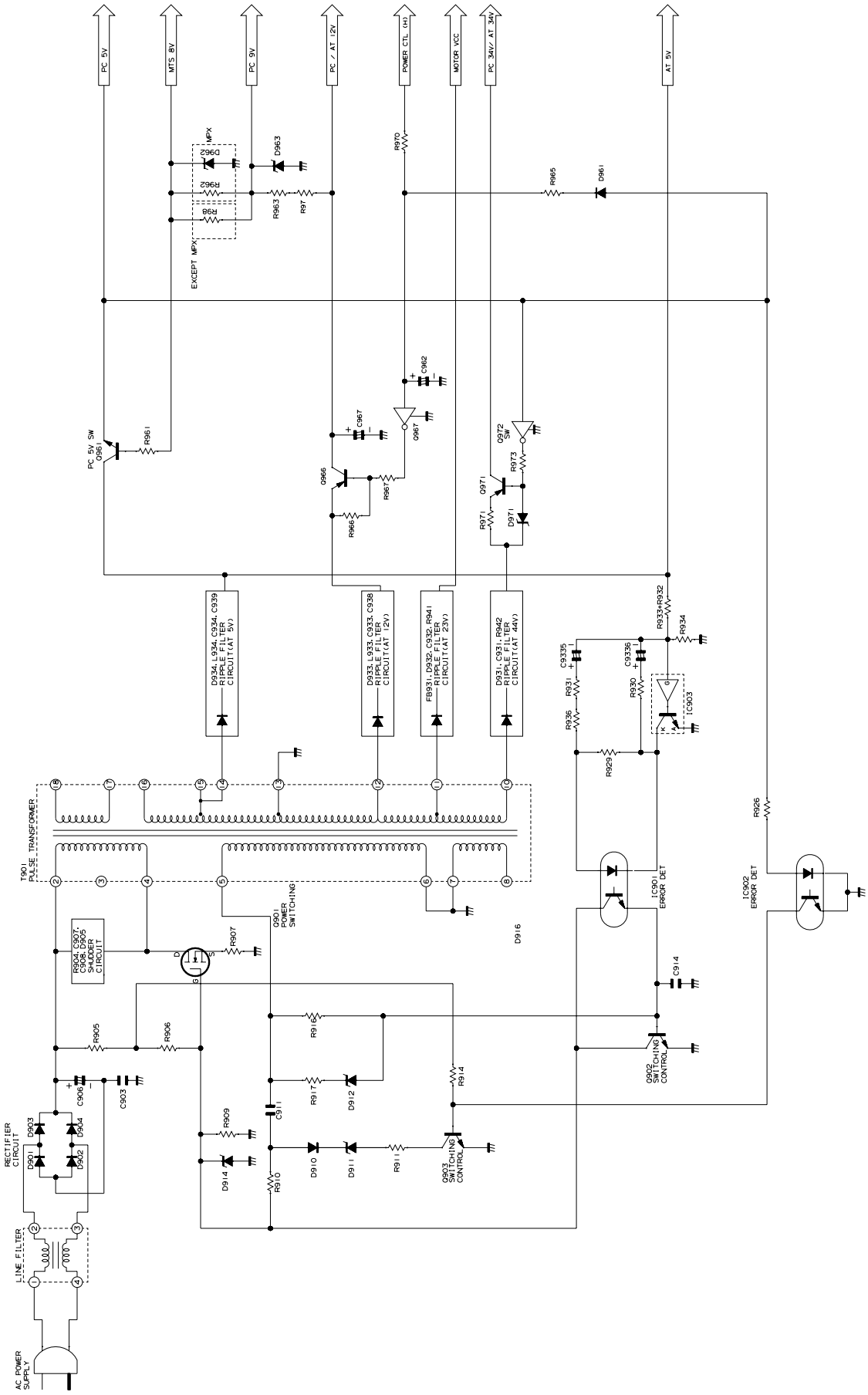
ROM MAP

	MODEL	AA350	AA352W	AA360	AA370	AA550	AA550W	AA560	AA570
JP39	SQ PB	0	0	0	0	0	0	0	0
JP38	SLOW ATR OFF	1	1	1	1	0	0	0	0
JP37	INSTANT REPLAY	0	0	0	0	1	1	1	1
JP36	NTSC PB	1	1	1	1	1	1	1	1
JP35	NTSC SKEW	0	0	0	0	1	1	1	1
JP34	HEAD2	1	1	1	0	1	1	1	1
JP33	HEAD1	0	0	0	0	1	1	1	1
JP32	HEAD0	0	0	0	1	1	1	1	1
JP31	GAMMA	0	0	0	0	0	0	0	0
JP30	LOW POWER 5MIN.	0	0	0	0	0	0	0	0
JP29	POSI 84	1	1	1	1	1	1	1	1
JP28	R/C 1/2	0	0	0	0	0	0	0	0
JP27	DNR	0	0	0	0	0	0	0	0
JP26	-	0	0	0	0	0	0	0	0
JP25	-	0	0	0	0	0	0	0	0
JP24	-	0	0	0	0	0	0	0	0
JP23	Hi-Fi	0	0	0	0	0	0	0	0
JP22	SORT	0	0	0	0	0	0	0	0
JP21	DECODER	0	0	0	0	0	0	0	0
JP20	SURROUND	0	0	0	0	0	0	0	0
JP19	IGR	0	0	0	0	0	0	0	0
JP18	NICAM	0	0	0	0	0	0	0	0
JP17	G-CODE 1	0	1	0	0	0	0	0	0
JP16	G-CODE 0	0	0	0	0	0	0	0	0
JP15	LP/EP	1	1	1	0	1	1	1	1
JP14	LP/EP	0	0	0	0	0	0	0	0
JP13	FRONT AV	0	1	0	0	1	1	1	1
JP12	DUAL SCART	0	0	0	0	0	0	0	0
JP11	RF OUT SETTIG OFF	0	0	0	0	0	0	0	0
JP10	TUNER 2	1	1	1	1	1	1	1	1
JP 9	TUNER 1	1	1	1	1	1	1	1	1
JP 8	TUNER 0	0	0	0	0	0	0	0	0
JP 7	SYSTEM 1	1	1	1	1	1	1	1	1
JP 6	SYSTEM 0	0	0	0	0	0	0	0	0
JP 5	VCP (KARAOKE Only)	0	0	0	0	0	0	0	0
JP 4	LOW POWER	0	0	0	0	0	0	0	0
JP 3	OEM	1	1	1	1	1	1	1	1
JP 2	SPATIALIZER	0	0	0	0	0	0	0	0
JP 1	COLOR 1	0	0	0	0	0	0	0	0
JP 0	COLOR 0	0	0	0	1	0	0	0	1
DISPLAY IN HEXADECIMAL NOTATION		5420008688	542002A688	5420008688	5120000689	3F2000A688	3F2000A688	3F2000A688	3F2000A689

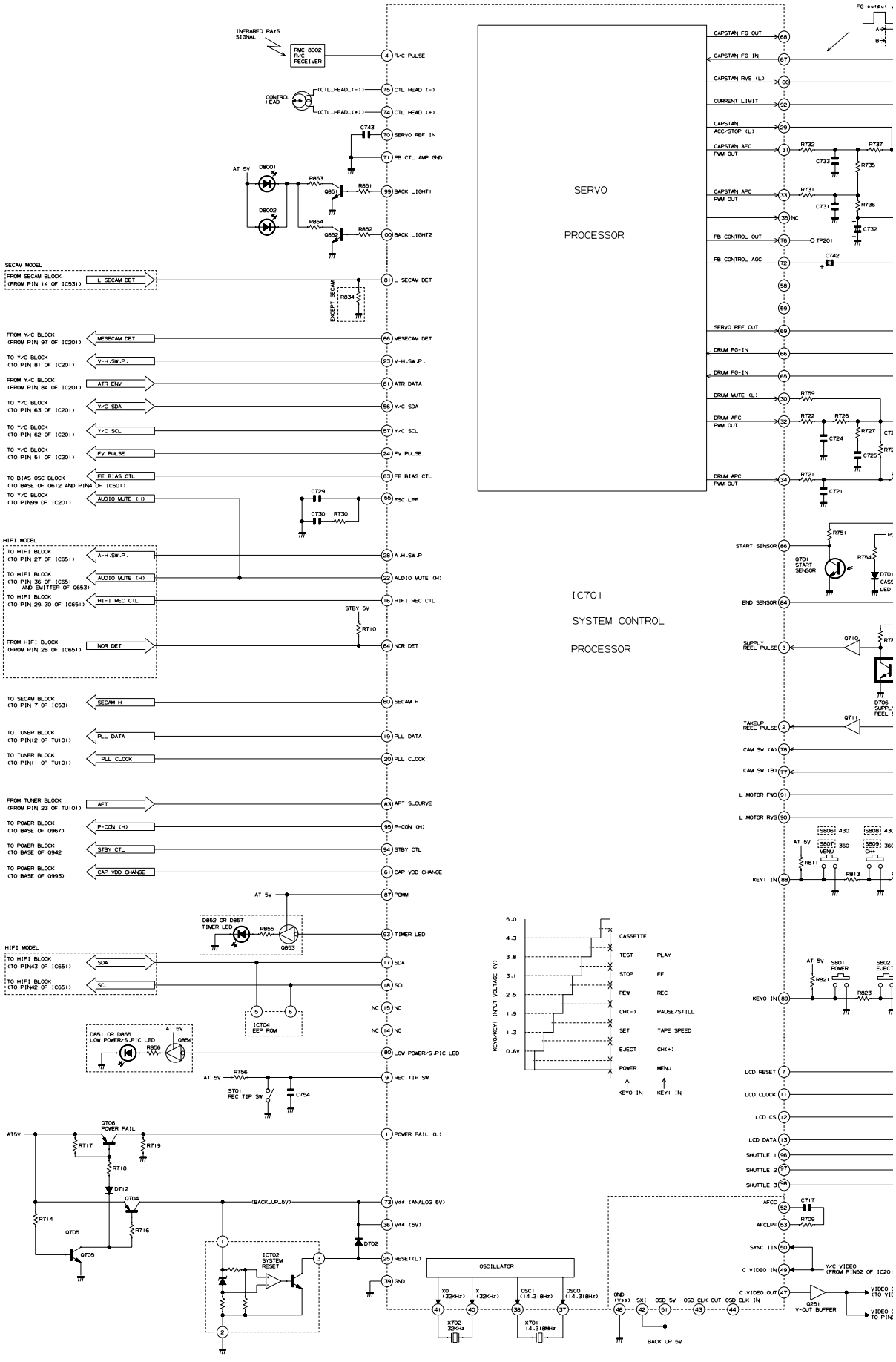
0:LIGHT UP 1:FLASHING

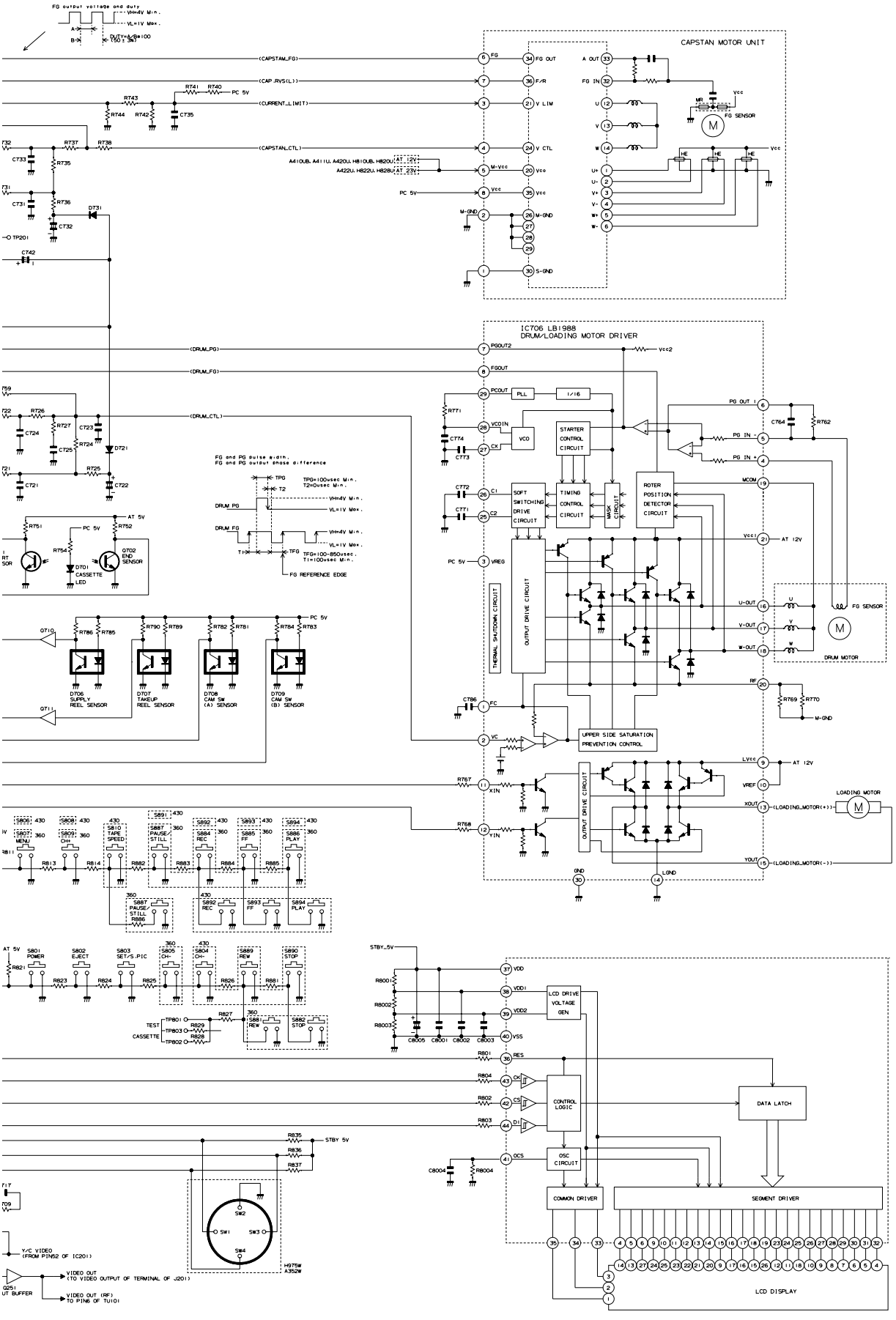
8. BLOCK DIAGRAM

POWER CIRCUIT BLOCK DIAGRAM

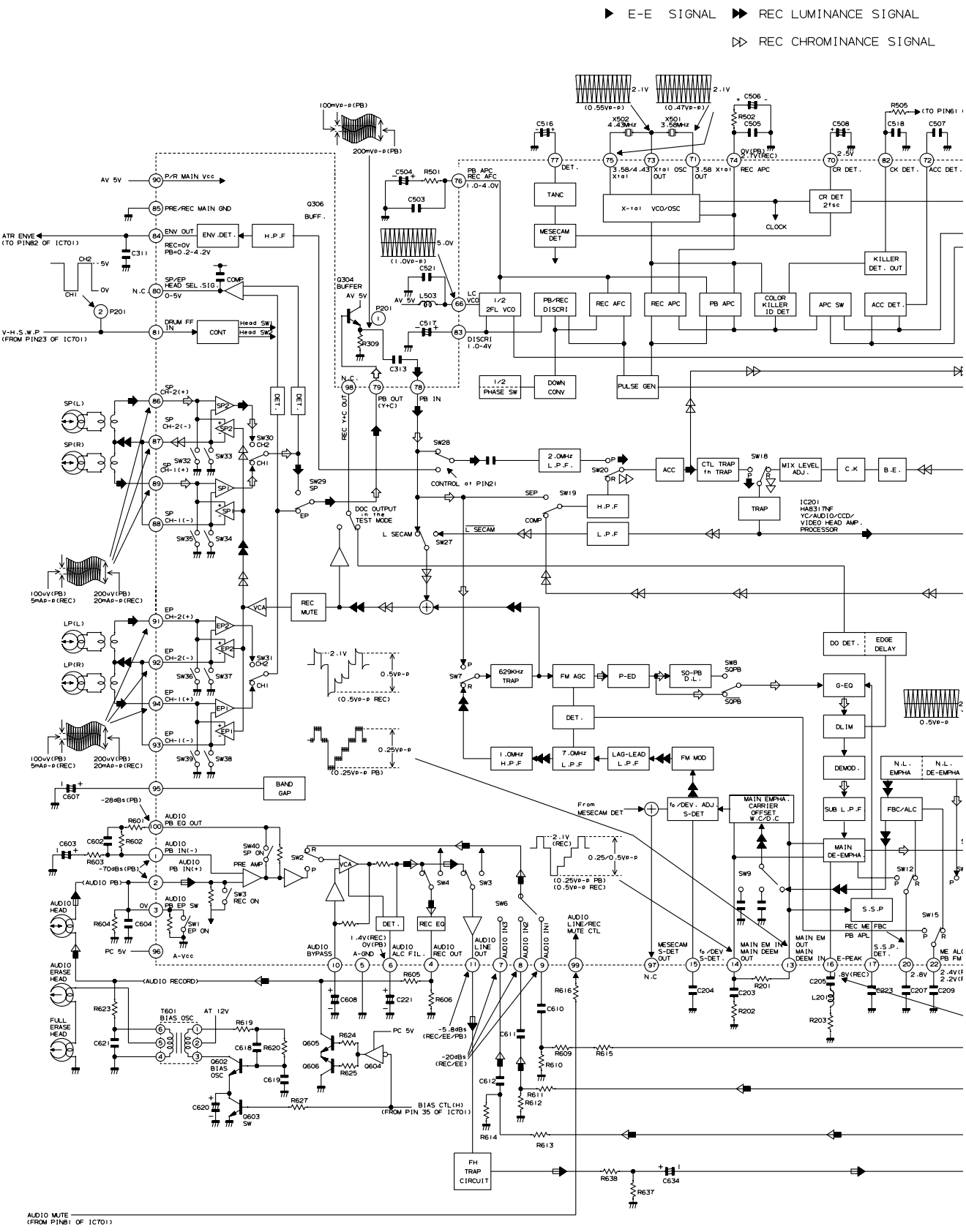


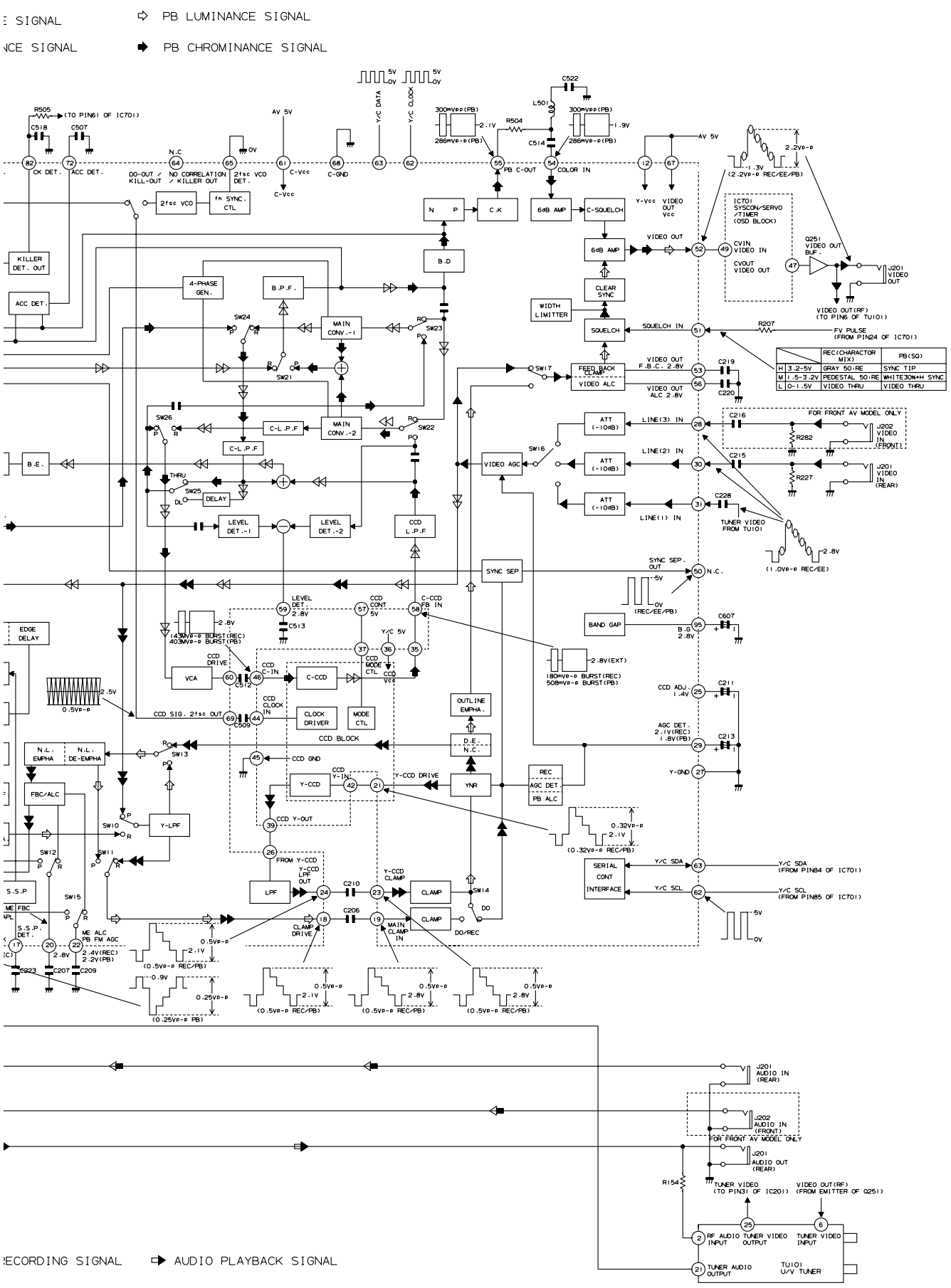
SYSTEM SERVO BLOCK DIAGRAM




CAPSTAN MOTOR UNIT
IC706 LB1988
DRUM/LOADING MOTOR DRIVER
FG REFERENCE EDGE
DRUM MOTOR
LOADING MOTOR
LCD DISPLAY
SEGMENT DRIVER
COMMON DRIVER
DATA LATCH
CONTROL LOGIC
LCD DRIVE VOLTAGE GEN
OSC CIRCUIT
OUTPUT DRIVE CIRCUIT
THERMAL SHUTDOWN CIRCUIT
UPPER SIDE SATURATION PREVENTION CONTROL
ROTER POSITION DETECTOR CIRCUIT
STARTER CONTROL CIRCUIT
SOFT SWITCHING DRIVE CIRCUIT
TIMING CONTROL CIRCUIT
MASK CIRCUIT
PLL
VCO
FG SENSOR
CASSETTE LED
END SENSOR
SUPPLY REEL SENSOR
TAKEUP REEL SENSOR
CAM SW (A) SENSOR
CAM SW (B) SENSOR

SIGNAL FLOW BLOCK DIAGRAM




E SIGNAL
PB LUMINANCE SIGNAL
NCE SIGNAL
PB CHROMINANCE SIGNAL
RECORDING SIGNAL
AUDIO PLAYBACK SIGNAL
IC701 SYSCON/SERVO /TIMER (OSD BLOCK)
CK DET.
ACC DET.
KILLER DET. OUT
2fsc VCO
fh SYNC. CTL
4-PHASE GEN.
B.P.F.
MAIN CONV.-1
MAIN CONV.-2
C-L.P.F
DELAY
LEVEL DET.-1
LEVEL DET.-2
CCD L.P.F
B.D
B.E.
6dB AMP
C-SQUELCH
C.K
CLEAR SYNC
WIDTH LIMITTER
SQUELCH
FEED BACK CLAMP
VIDEO ALC
VIDEO AGC
SYNC SEP
BAND GAP
ATT (-10dB)
LINE(3) IN
LINE(2) IN
LINE(1) IN
TUNER VIDEO FROM TU101
FOR FRONT AV MODEL ONLY
EDGE DELAY
VCA
CCD DRIVE
C-CCD
CCD MODE CTL
CLOCK DRIVER
MODE CTL
CCD BLOCK
OUTLINE EMPHA.
D.E. N.C.
YNR
Y-CCD
Y-LPF
LPF
CLAMP
MAIN CLAMP IN
CLAMP DRIVE
N.L. EMPHA
N.L. DE-EMPHA
FBC/ALC
REC AGC DET
PB ALC
SERIAL CONT INTERFACE
Y/C SDA (FROM PIN84 OF IC701)
Y/C SCL (FROM PIN85 OF IC701)
S.S.P DET.
ME ALC PB FM AGC
J201 VIDEO OUT
J201 VIDEO IN (REAR)
J202 VIDEO IN (FRONT)
J201 AUDIO IN (REAR)
J202 AUDIO IN (FRONT)
J201 AUDIO OUT (REAR)
TUNER VIDEO (TO PIN31 OF IC201)
VIDEO OUT(RF) (FROM EMITTER OF Q251)
RF AUDIO OUTPUT
TUNER VIDEO OUTPUT
TUNER VIDEO INPUT
TUNER AUDIO OUTPUT
TU101 U/V TUNER
REC(CHARACTOR MIX)
PB(SQ)
H 3.2-5V
GRAY 50:RE
SYNC TIP
M 1.5-3.2V
PEDESTAL 50:RE
WHITE30%+H SYNC
L 0-1.5V
VIDEO THRU
VIDEO THRU

SCHEMATIC DIAGRAM

IMPORTANT SAFETY NOTICE:
BE SURE TO USE GENUINE PARTS FOR SECURING THE SAFETY AND RELIABILITY OF THE SET.
PARTS MARKED WITH " ⚠ " AND PARTS SHADED (IN BLACK) ARE ESPECIALLY IMPORTANT FOR MAINTAINING THE SAFETY AND PROTECTING ABILITY OF THE SET.
BE SURE TO REPLACE THEM WITH PARTS OF SPECIFIED PART NUMBER.

SAFETY NOTES:
1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

NOTES:
1. *The unit of resistance "ohm" is omitted (k=1000 ohm, M=1 Meg ohm).*
2. *All resistors are 1/8 watt, unless otherwise noted.*
3. *The unit of capacitance "F" is omitted (μ=μF, p=μμF).*
4. *The values in parentheses are the ones in the PB mode; the values without parentheses are the ones in the REC mode.*

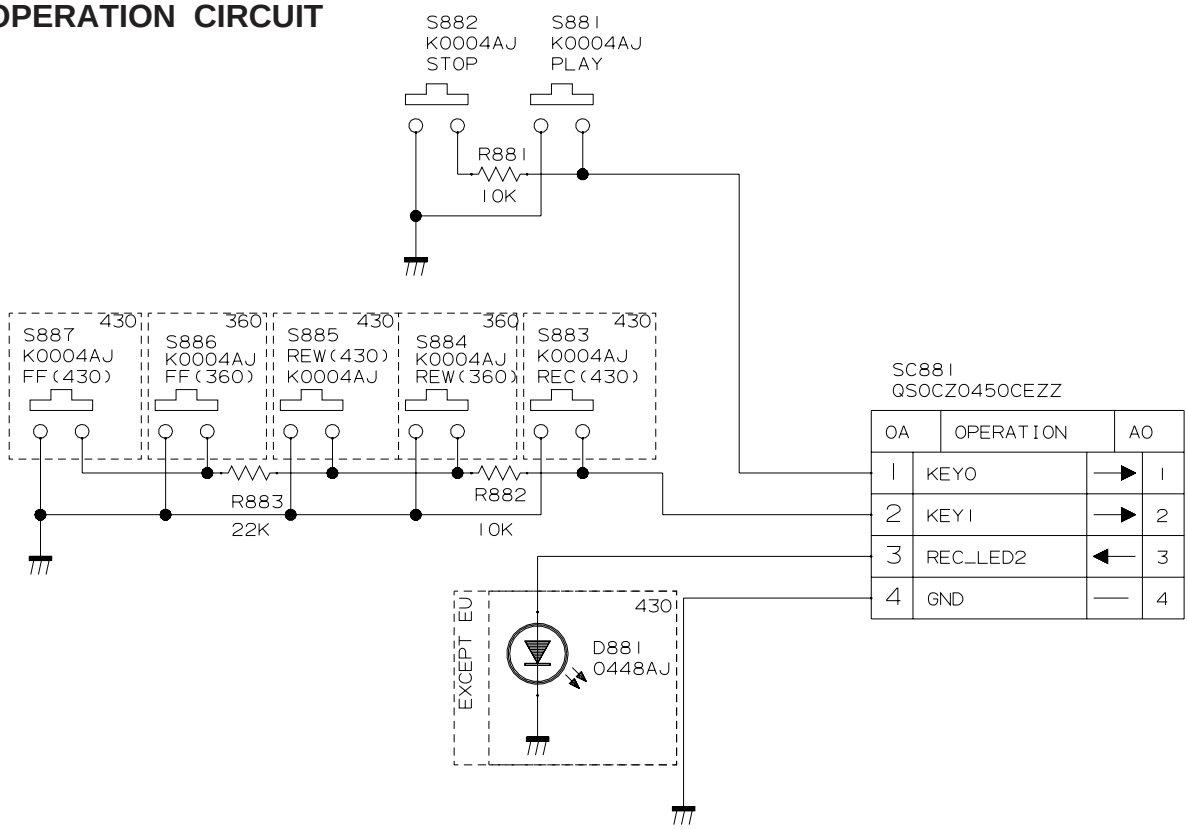
VOLTAGE MEASUREMENT CONDITIONS:
1. *DC voltages are measured between points indicated and chassis ground by VTVM, with AC110~240V, 50/60Hz supplied to unit and all controls are set to normal viewing picture unless otherwise noted.*
2. *Voltages are measured with 10000μV B & W or colour noted.*

WAVEFORM MEASUREMENT CONDITIONS:
10000μV 87.5 percent modulated colour bar signal is fed into tuner.

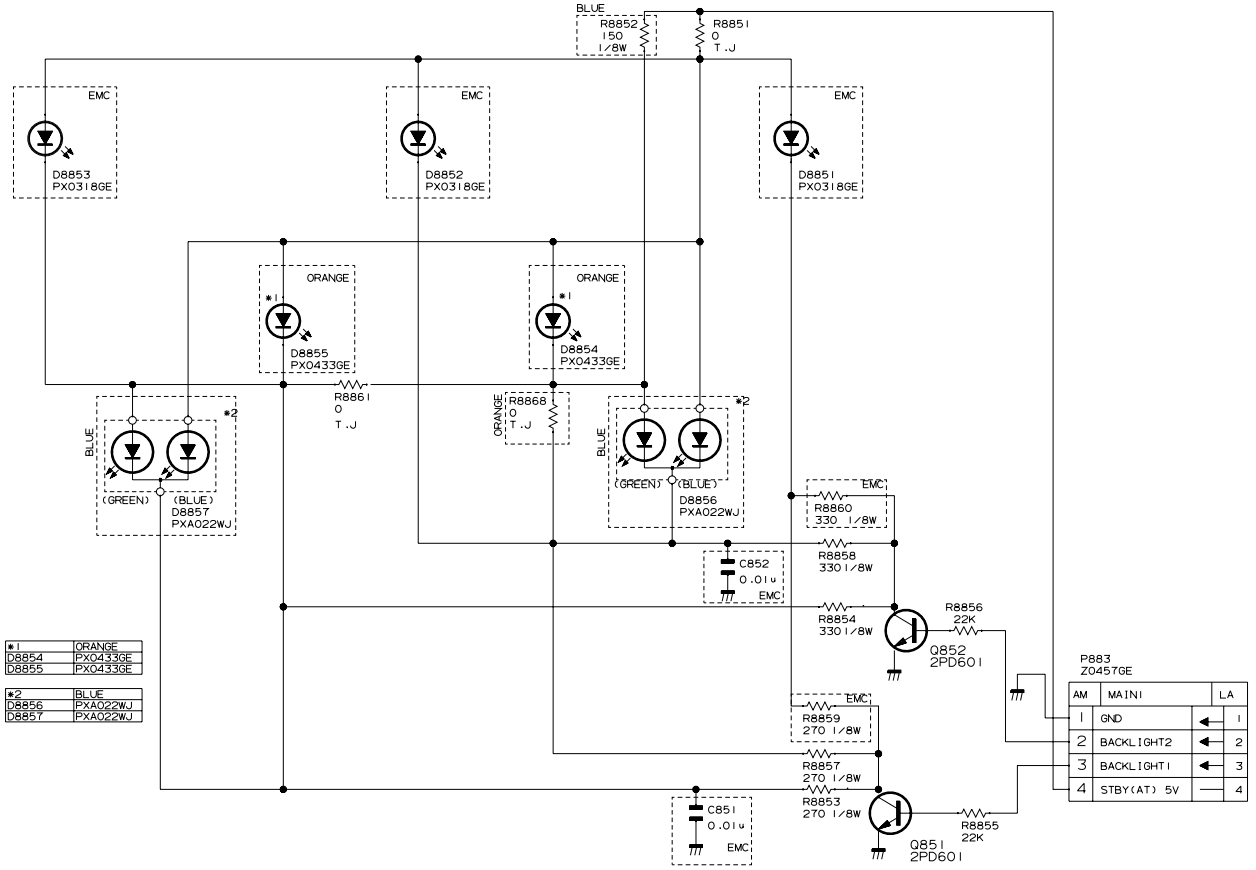
CAUTION:
This circuit diagram is original one. Therefore there may be a slight difference from yours.

9. SCHEMATIC DIAGRAM AND PWB FOIL PATTERN

OPERATION CIRCUIT

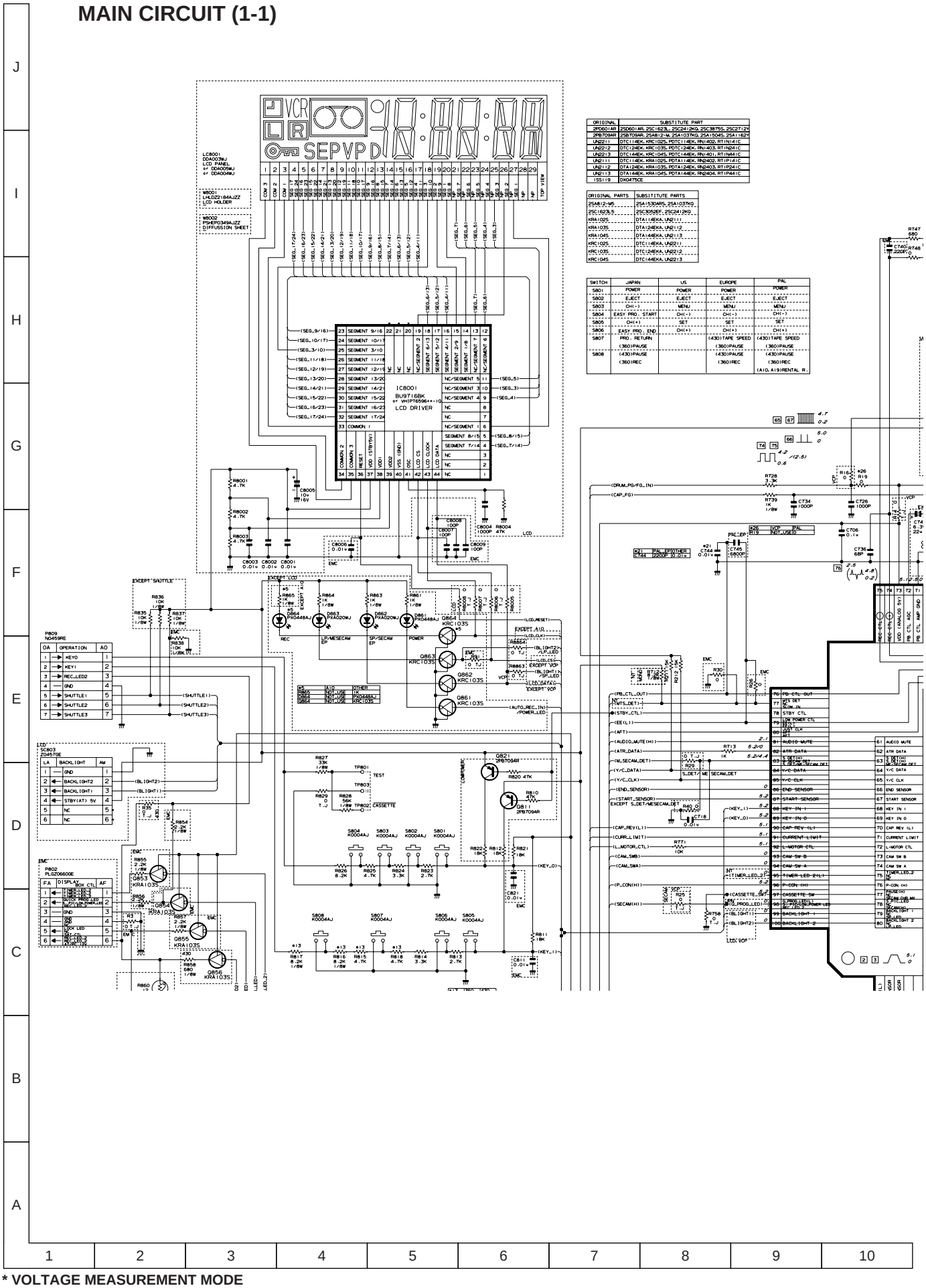


BACK LIGHT CIRCUIT



*** VOLTAGE MEASUREMENT MODE**
PB ..... Parentheses ( )
REC ... Without Parentheses

MAIN CIRCUIT (1-1)



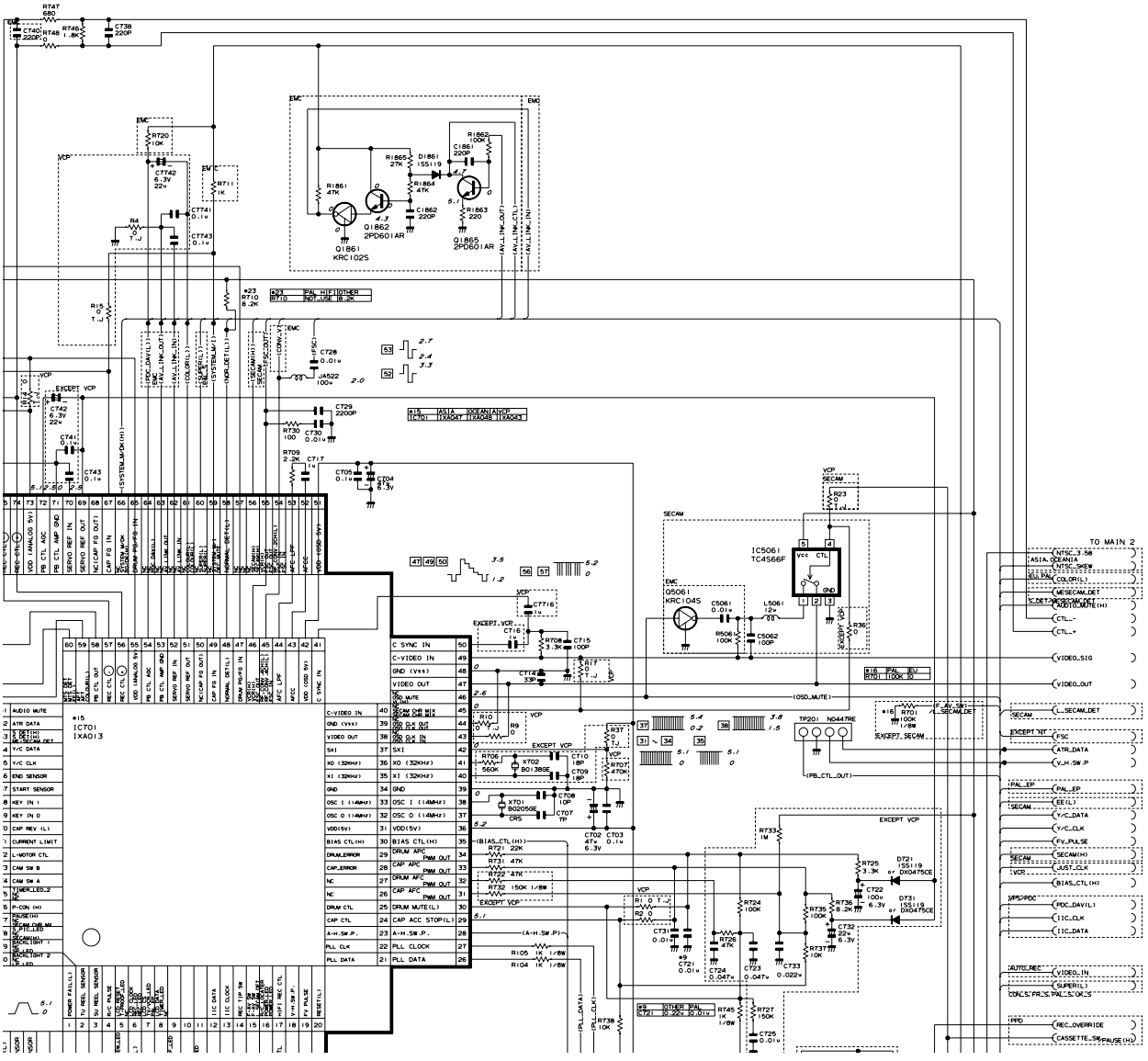
ORIGINAL	SUBSTITUTE PART
2PD601AR	2SD601AR, 2SC1623L, 2SC2412KQ, 2SC3875S, 2SC2712Y
2PB709AR	2SB709AR, 2SA812-M, 2SA1037KQ, 2SA1504S, 2SA1162Y
UN2211	DTC114EK, KRC102S, PDTC114EK, RN1402, RT1N141C
UN2212	DTC124EK, KRC103S, PDTC124EK, RN1403, RT1N241C
UN2213	DTC144EK, KRC104S, PDTC144EK, RN1401, RT1N441C
UN2111	DTC114EK, KRA102S, PDTA114EK, RN2402, RT1P141C
UN2112	DTA124EK, KRA103S, PDTA124EK, RN2403, RT1P241C
UN2113	DTA144EK, KRA104S, PDTA144EK, RN2404, RT1P441C
ISS119	DA34T5CE

ORIGINAL PARTS	SUBSTITUTE PARTS
2SA812-M5	2SA1530AR5, 2SA1037KQ
2SC1623L5	2SC3052EF, 2SC2412KQ
KRA102S	DTA114EKA, UN2111
KRA103S	DTA124EKA, UN2112
KRA104S	DTA144EKA, UN2113
KRC102S	DTC114EKA, UN2211
KRC103S	DTC124EKA, UN2212
KRC104S	DTC144EKA, UN2213

SWITCH	JAPAN	US	EUROPE	PAL
S801	POWER	POWER	POWER	POWER
S802	EJECT	EJECT	EJECT	EJECT
S803	CH(-)	MENU	MENU	MENU
S804	EASY PRO. START	CH(-)	CH(-)	CH(-)
S805	CH(+)	SET	SET	SET
S806	EASY PRO. END	CH(+)	CH(+)	CH(+)
S807	PRO. RETURN (360)PAUSE		(430)TAPE SPEED (360)PAUSE	(430)TAPE SPEED (360)PAUSE
S808	(430)PAUSE (360)REC		(430)PAUSE (360)REC	(430)PAUSE (360)REC (A10, A19)RENTAL R.

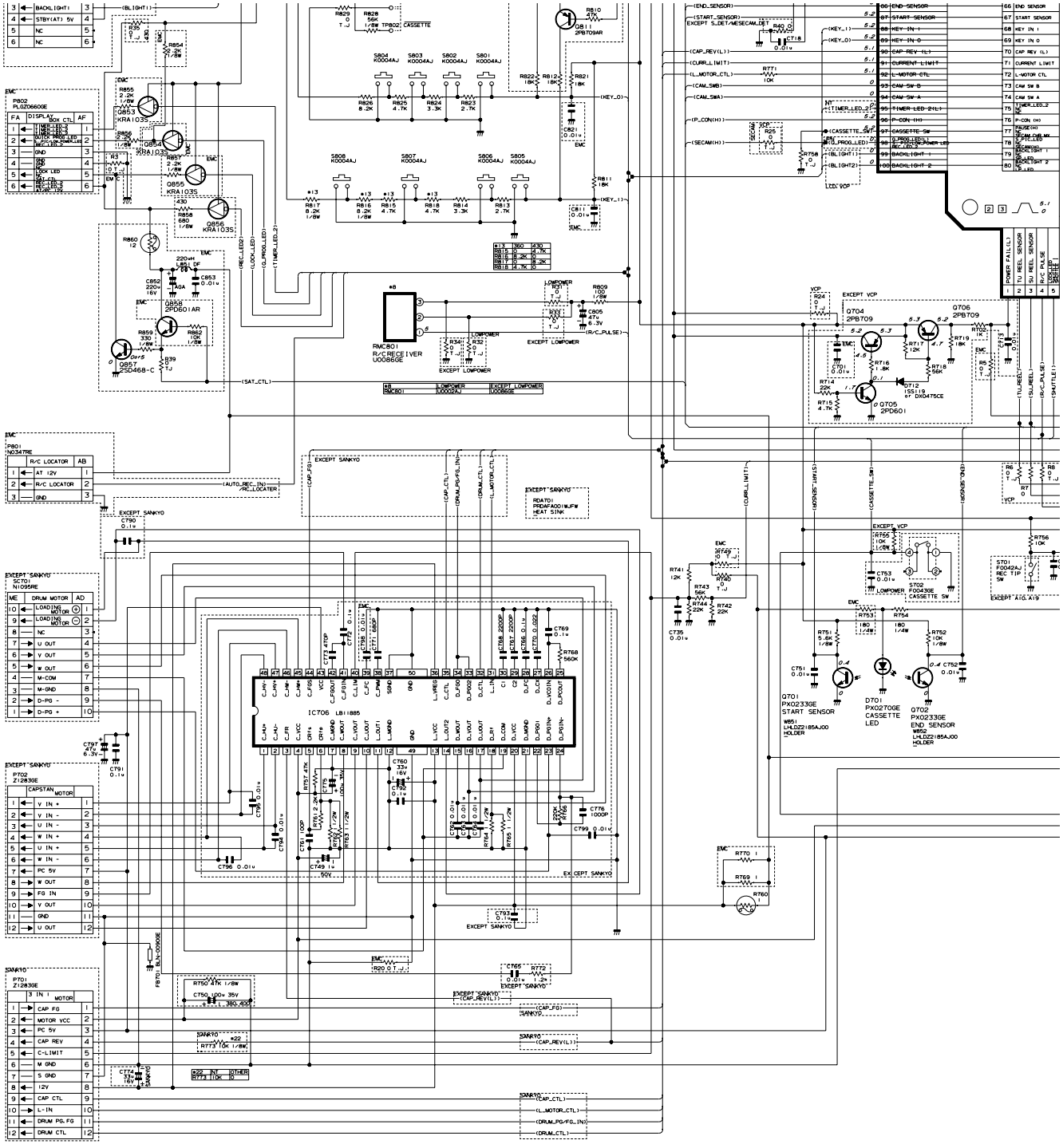
1	2	3	4	5	6	7	8	9	10

*** VOLTAGE MEASUREMENT MODE**
PB ..... Parentheses ( )
REC ... Without Parentheses

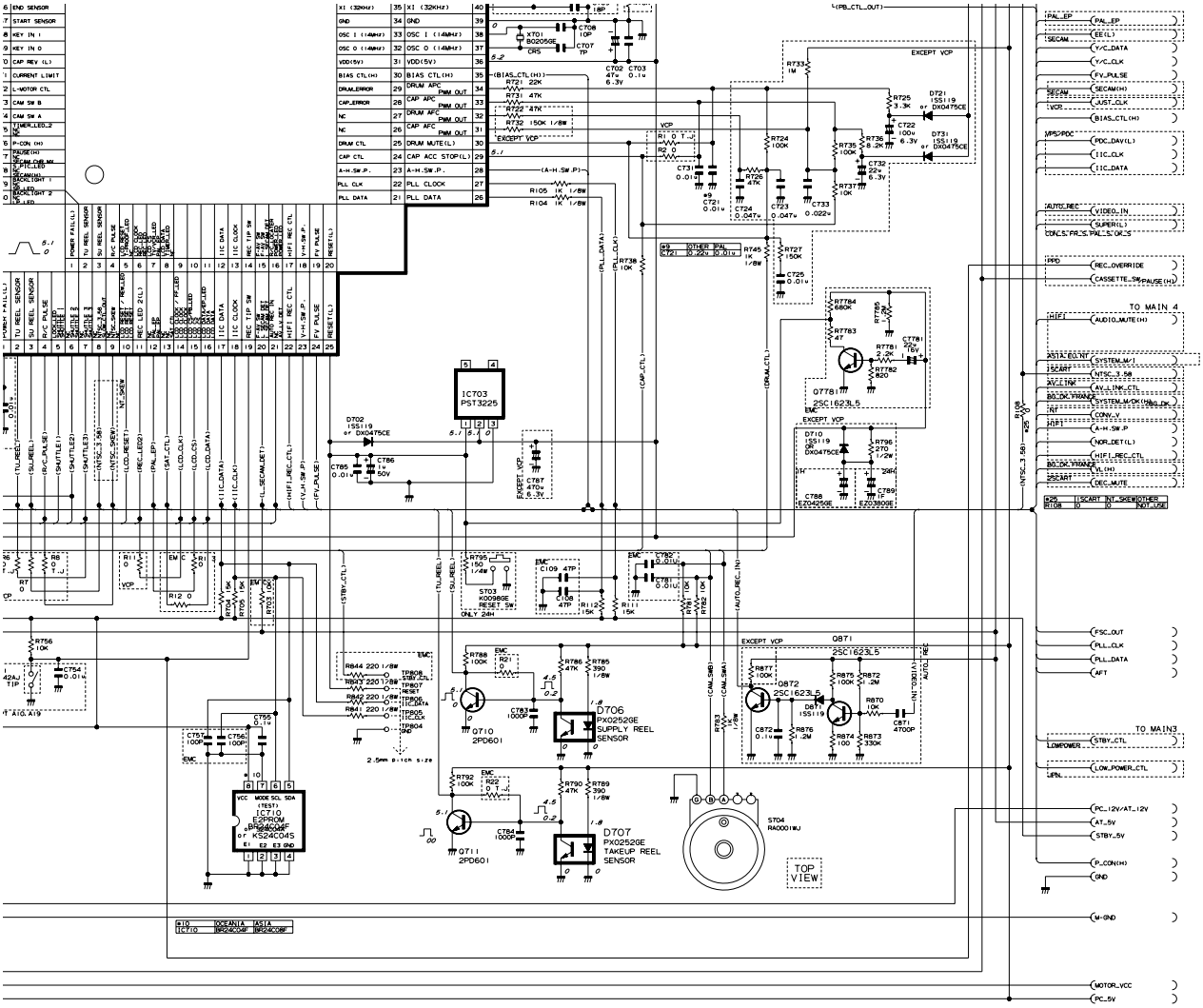


10	11	12	13	14	15	16	17	18	19

MAIN CIRCUIT (1-2)

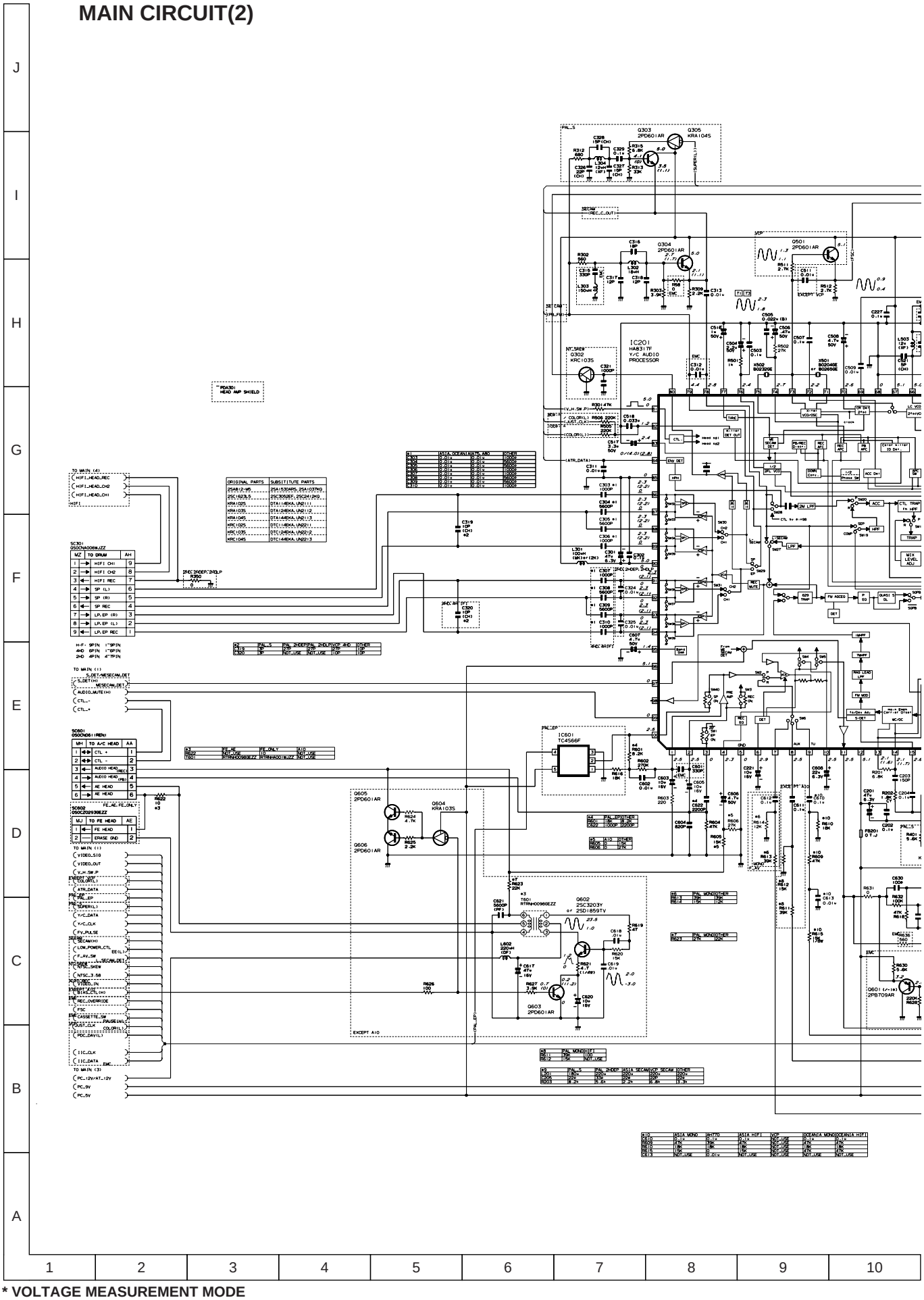


*** VOLTAGE MEASUREMENT MODE**
PB ..... Parentheses ( )
REC ... Without Parentheses

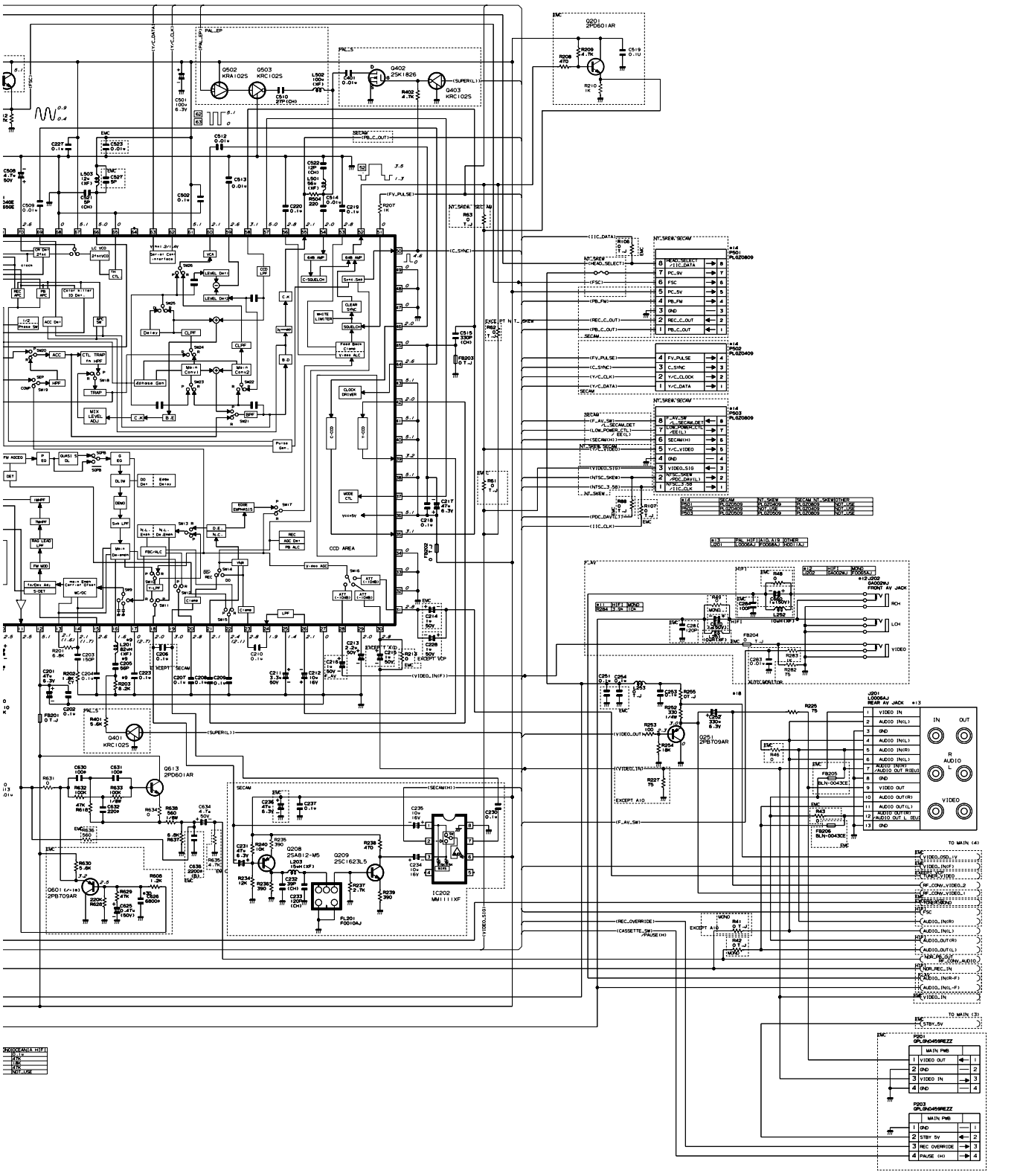


10	11	12	13	14	15	16	17	18	19

MAIN CIRCUIT(2)

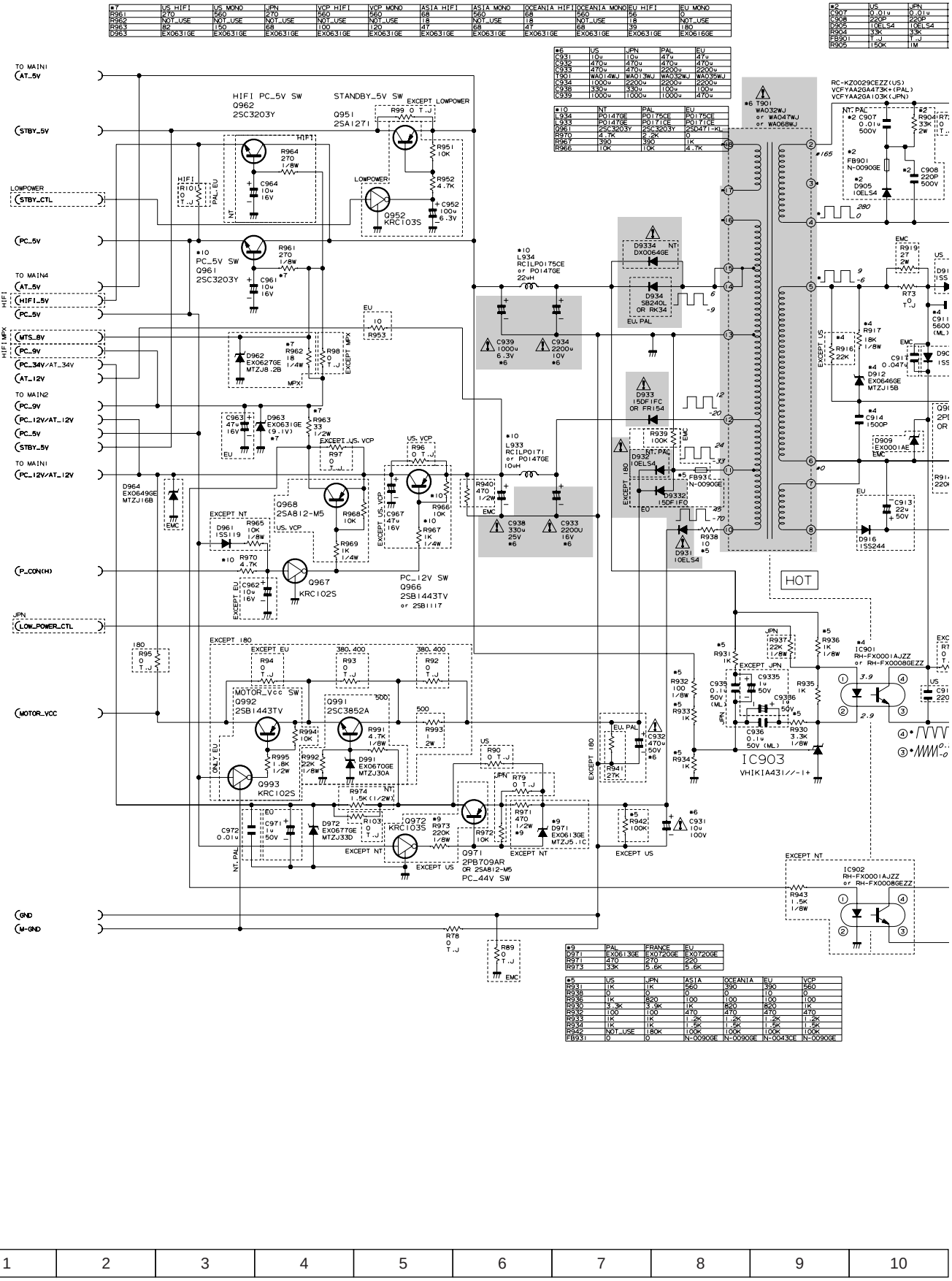


*** VOLTAGE MEASUREMENT MODE**
PB ..... Parentheses ( )
REC ... Without Parentheses



10	11	12	13	14	15	16	17	18	19

MAIN CIRCUIT(3)



*7	US HIFI	US MONO	JPN	VCP HIFI	VCP MONO	ASIA HIFI	ASIA MONO	OCEANIA HIFI	OCEANIA MONO	EU HIFI	EU MONO
R961	270	560	270	560	560	68	560	68	560	56	0
R962	NOT_USE	NOT_USE	NOT_USE	NOT_USE	NOT_USE	18	NOT_USE	18	NOT_USE	18	NOT_USE
R963	82	150	68	100	120	47	68	47	68	39	180
D963	EX0631GE	EX0631GE	EX0631GE	EX0631GE	EX0631GE	EX0631GE	EX0631GE	EX0631GE	EX0631GE	EX0631GE	EX0616GE

*2	US	JPN
C907	0.01u	0.01u
C908	220P	220P
D905	10ELS4	10ELS4
R904	33K	33K
FB901	1-J	1-J
R905	150K	1M

*6	US	JPN	PAL	EU
C931	10u	10u	47u	47u
C932	470u	470u	470u	470u
C933	470u	470u	220u	220u
T901	WA014WJ	WA013WJ	WA032WJ	WA035WJ
C934	1000u	2200u	2200u	2200u
C938	330u	330u	100u	100u
C939	1000u	1000u	1000u	470u

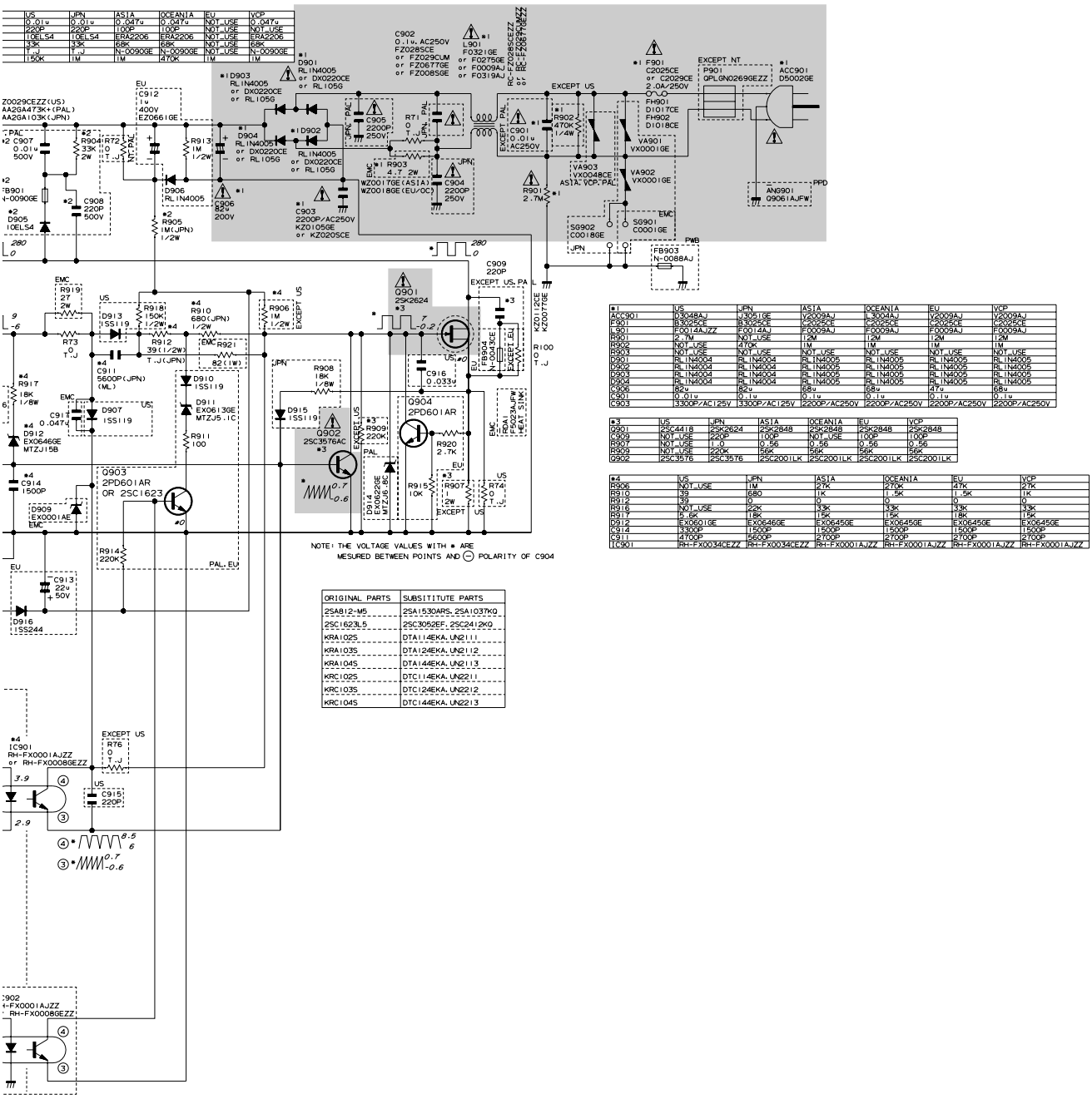
*10	NT	PAL	EU
L934	P0147GE	P0175CE	P0175CE
L933	P0147GE	P0171FE	P0171FE
Q961	2SC3203Y	2SC3203Y	2SD471-KL
R970	4.7K	2.2K	0
R967	390	390	1K
R966	10K	10K	4.7K

*9	PAL	FRANCE	EU
D971	EX0613GE	EX0720GE	EX0720GE
R971	470	270	220
R973	33K	15.6K	15.6K

*5	US	JPN	ASIA	OCEANIA	EU	VCP
R931	1K	1K	560	390	390	560
R938	0	0	0	0	10	0
R936	1K	820	100	100	100	100
R930	3.3K	3.9K	1K	820	820	1K
R939	100	100	470	470	470	470
R933	1K	1K	1.2K	1.2K	1.2K	1.2K
R934	1K	1K	1.5K	1.5K	1.5K	1.5K
R942	NOT_USE	180K	100K	100K	100K	100K
FB931	0	0	N-0090GE	N-0090GE	N-0043CE	N-0090GE

1	2	3	4	5	6	7	8	9	10

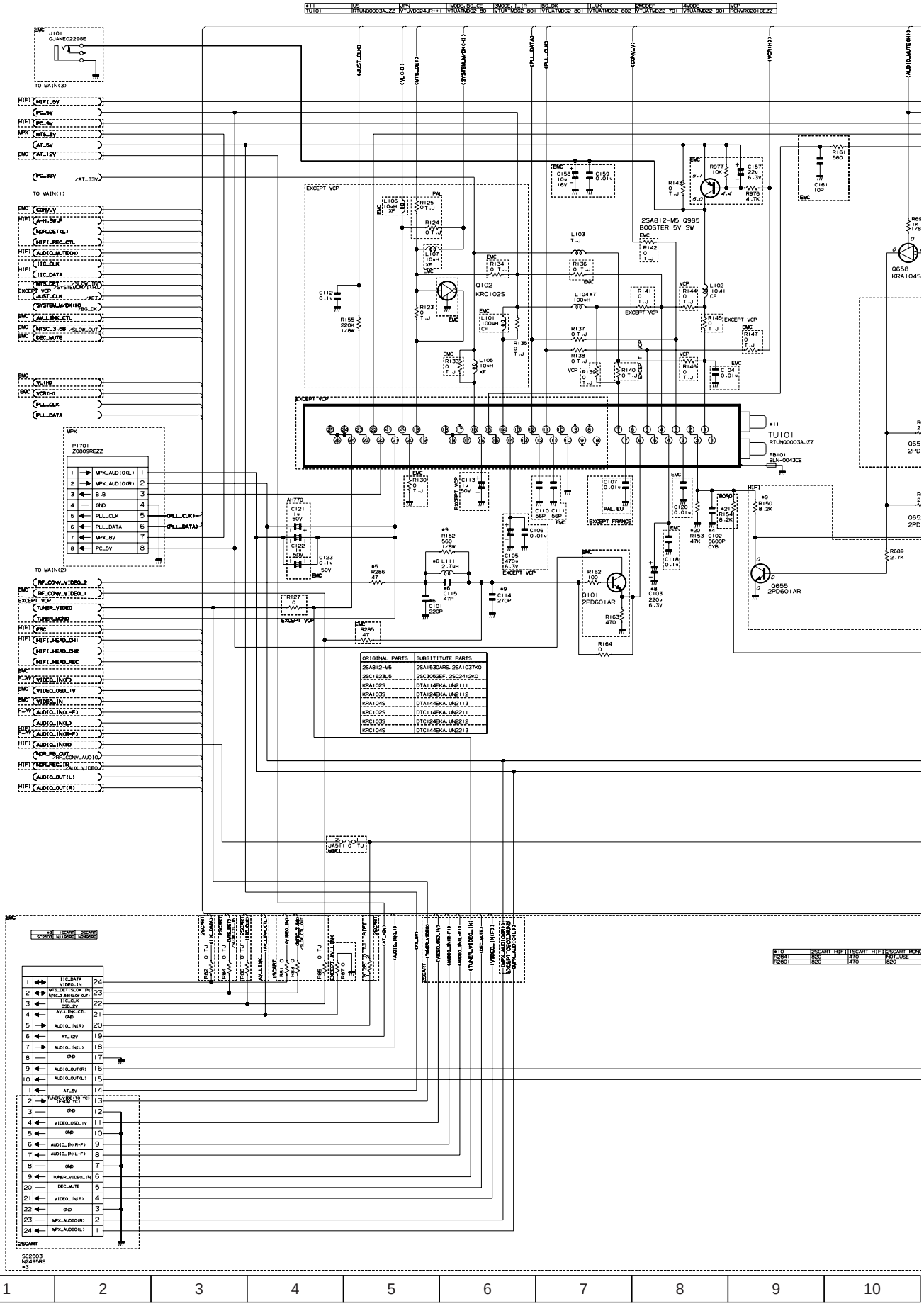
*** VOLTAGE MEASUREMENT MODE**
PB ..... Parentheses ( )
REC ... Without Parentheses



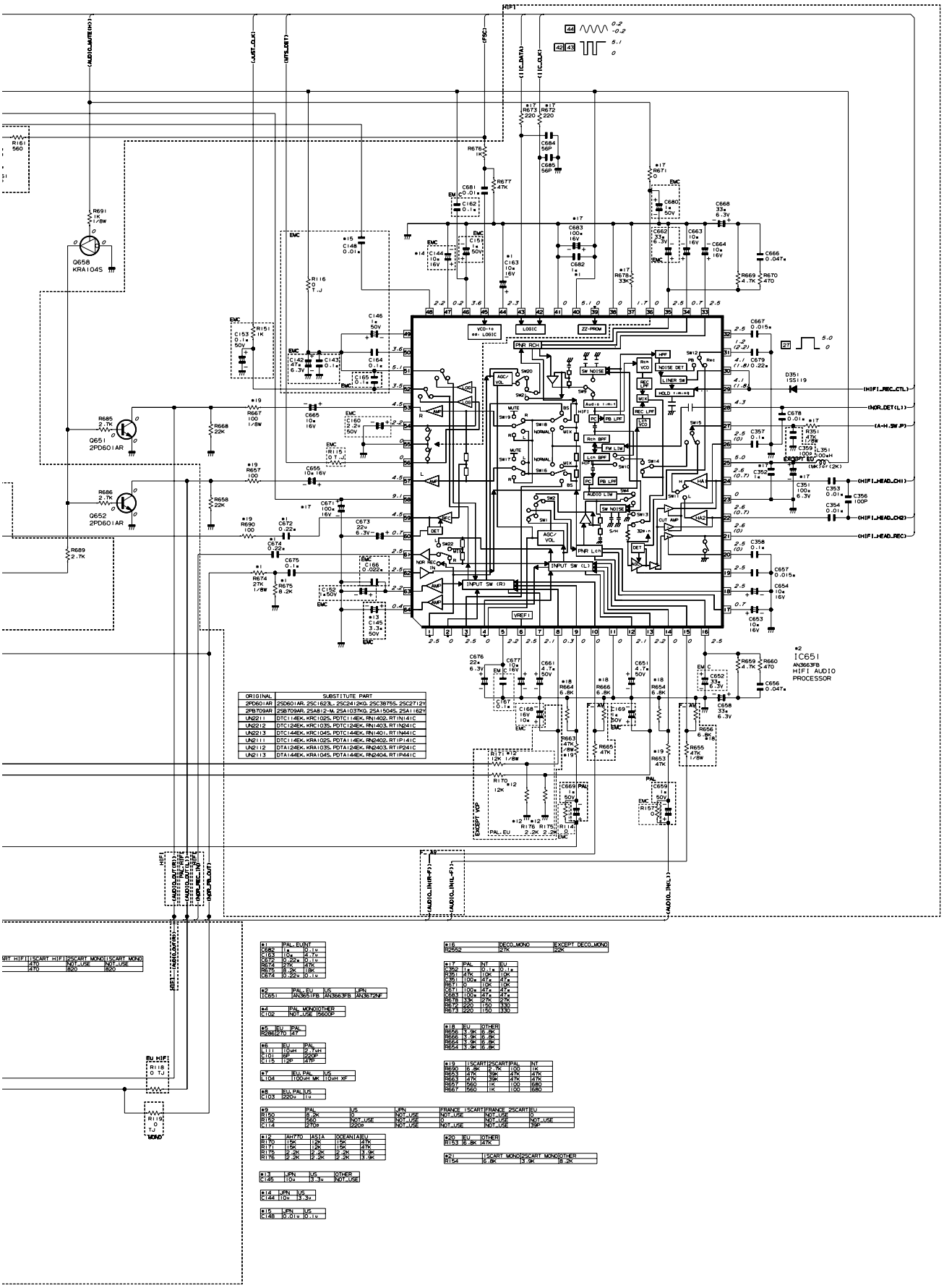
ORIGINAL PARTS	SUBSTITUTE PARTS
2SA812-M5	2SA1530ARS, 2SA1037KQ
2SC1623L5	2SC3052EF, 2SC2412KQ
KRA102S	DTA114EKA, UN2111
KRA103S	DTA124EKA, UN2112
KRA104S	DTA144EKA, UN2113
KRC102S	DTC114EKA, UN2211
KRC103S	DTC124EKA, UN2212
KRC104S	DTC144EKA, UN2213

10	11	12	13	14	15	16	17	18	19

MAIN CIRCUIT(4)



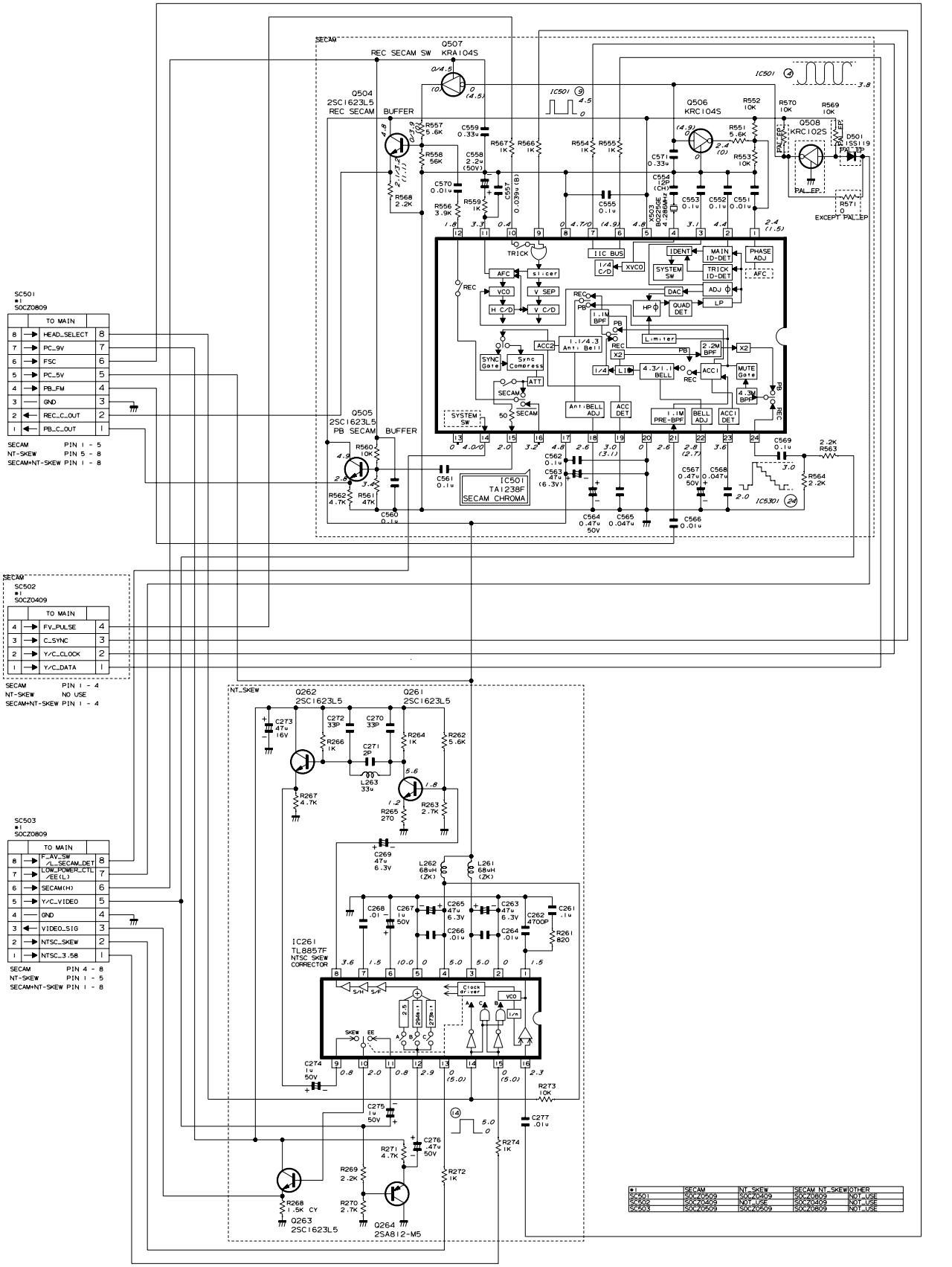
*** VOLTAGE MEASUREMENT MODE**
PB ..... Parentheses ( )
REC ... Without Parentheses



ORIGINAL	SUBSTITUTE PART
2PD601AR	2SD601AR, 2SC1623L, 2SC2412KQ, 2SC3875S, 2SC2712V
2PB709AR	2SB709AR, 2SA812-M, 2SA1037KQ, 2SA1504S, 2SA1162V
UN2211	DTC114EK, KRC102S, PDTC114EK, RN1402, RT1N141C
UN2212	DTC124EK, KRC103S, PDTC124EK, RN1403, RT1N241C
UN2213	DTC144EK, KRC104S, PDTC144EK, RN1401, RT1N441C
UN2111	DTC114EK, KRA102S, PDTA114EK, RN2402, RT1P141C
UN2112	DTA124EK, KRA103S, PDTA124EK, RN2403, RT1P241C
UN2113	DTA144EK, KRA104S, PDTA144EK, RN2404, RT1P441C

10	11	12	13	14	15	16	17	18	19

SECAM/NTSC SKEW CIRCUIT

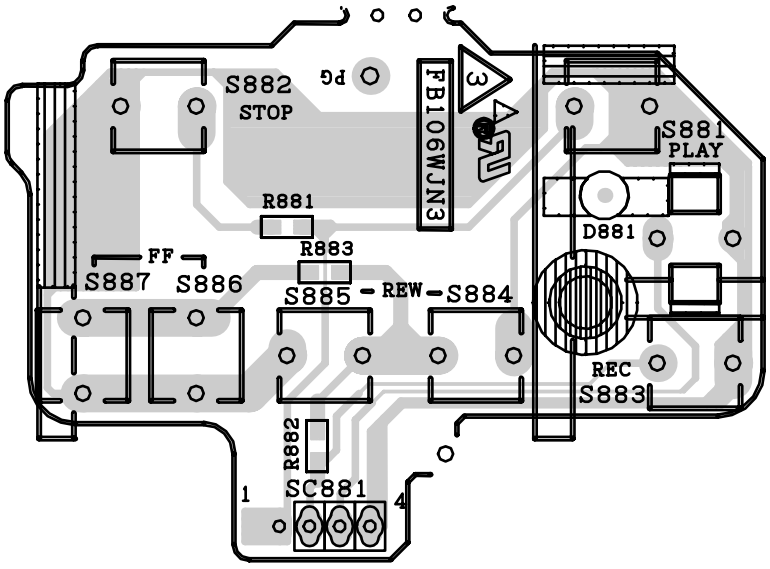


*	SECAM	NT_SKEW	SECAM_NT_SKEW	OTHER
SC501	SOCZ0509	SOCZ0409	SOCZ0809	NOT_USE
SC502	SOCZ0409	NOT_USE	SOCZ0409	NOT_USE
SC503	SOCZ0509	SOCZ0509	SOCZ0809	NOT_USE

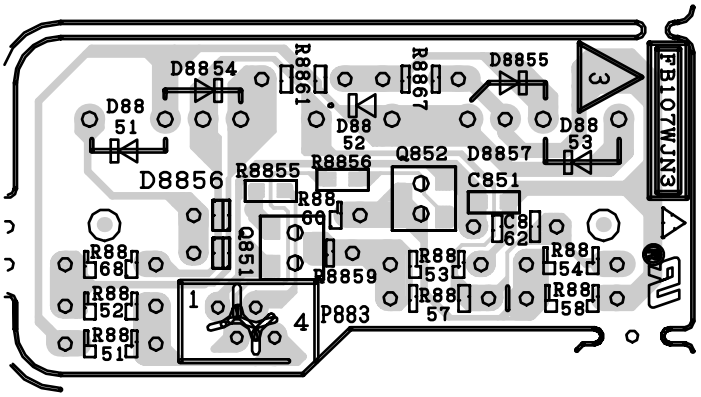
*** VOLTAGE MEASUREMENT MODE**
PB ..... Parentheses ( )
REC ... Without Parentheses

PWB FOIL PATTERN

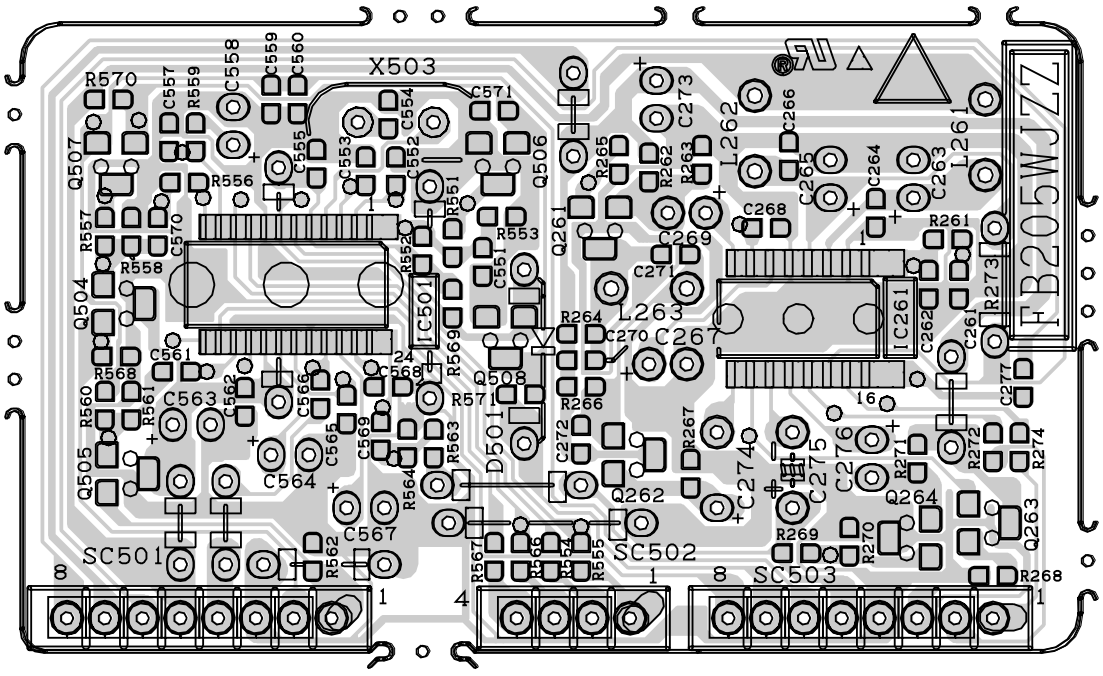
OPERATION PWB



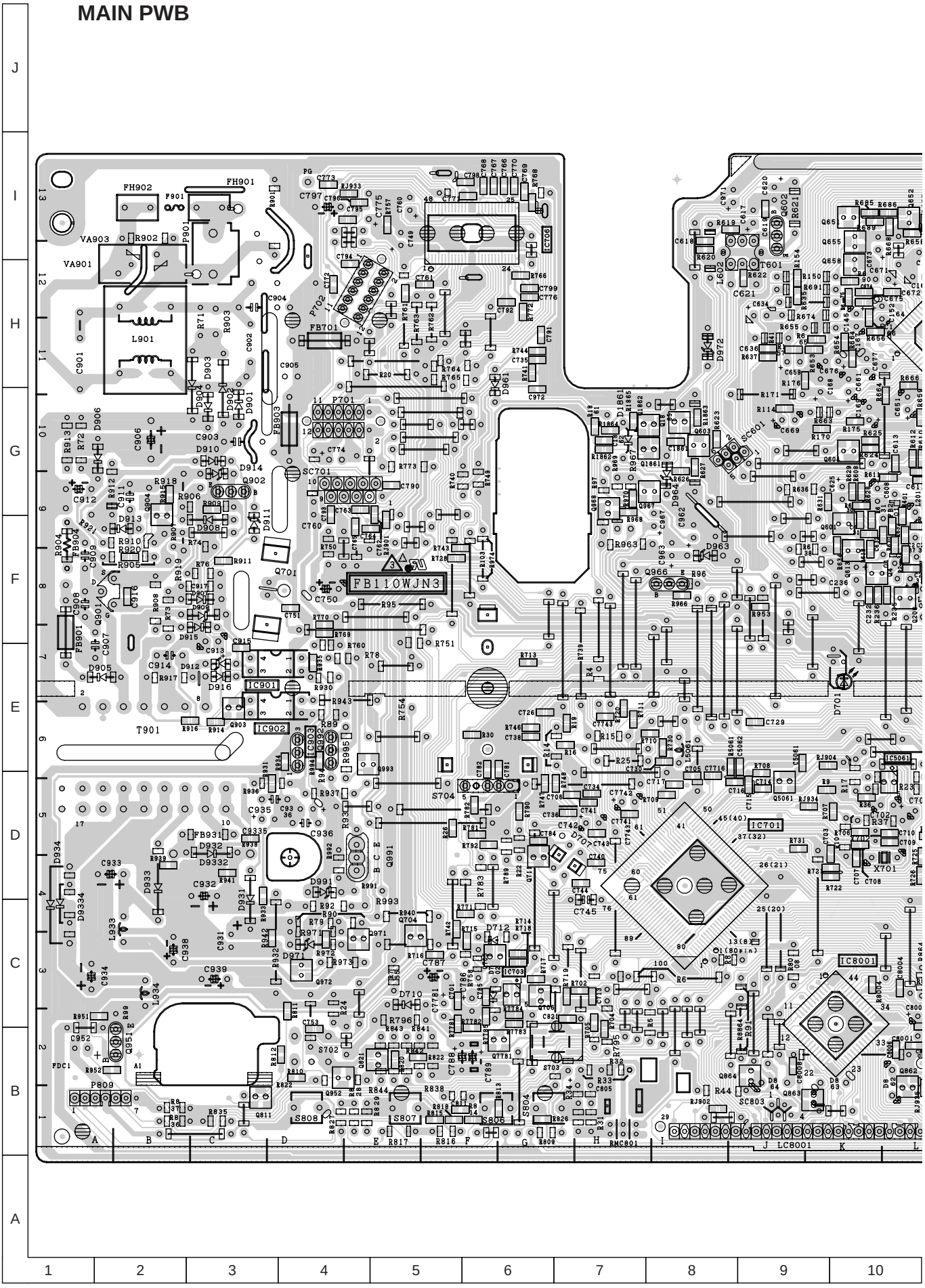
BACK LIGHT PWB

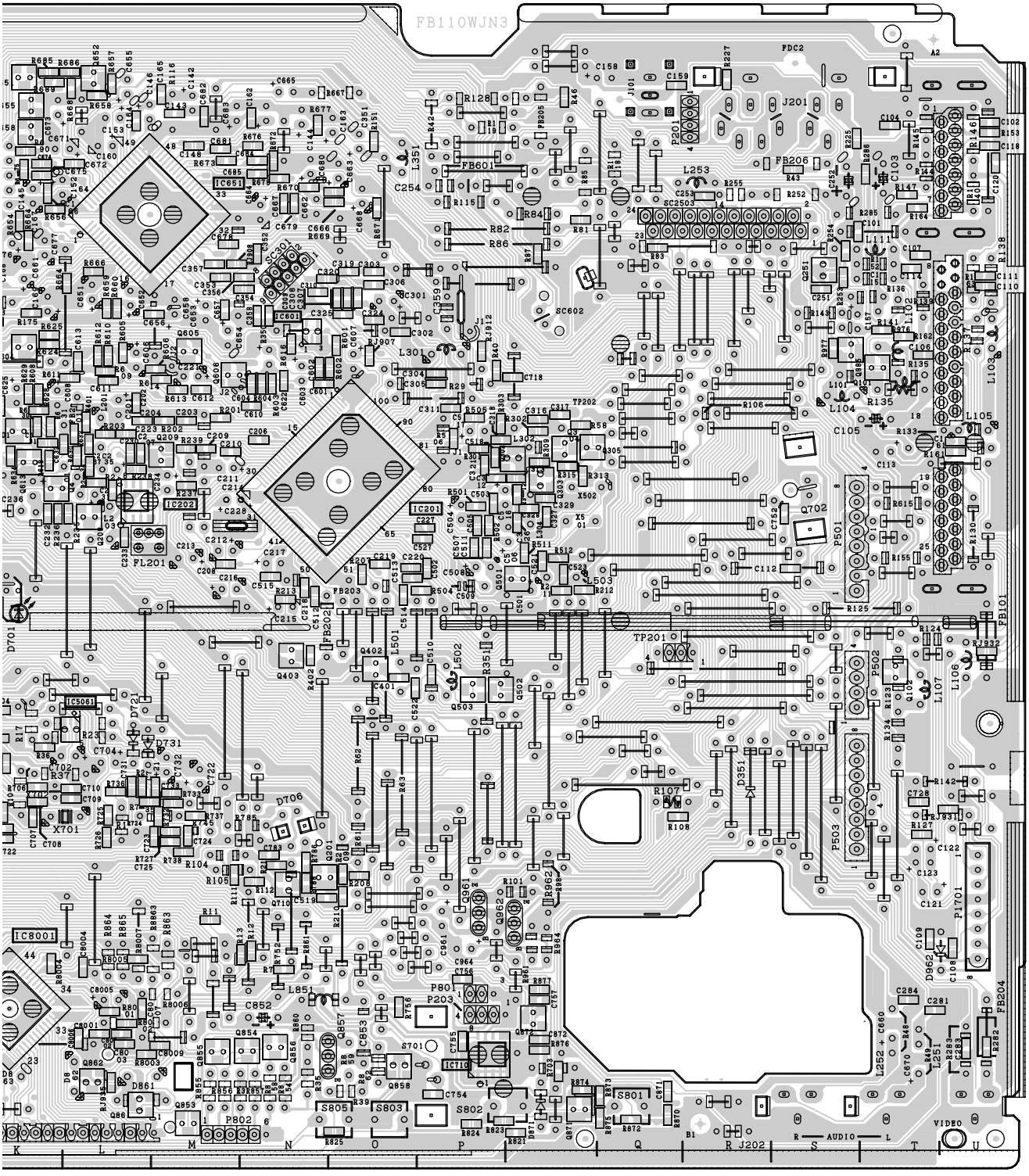


SECAM/NTSC SKEW PWB



MAIN PWB


FB110WJN3
IC901
IC902
IC701
IC8001
IC5061
T901
L901
P809
LC8001
RMC801



10	11	12	13	14	15	16	17	18	19

10. REPLACEMENT PARTS LIST

PARTS REPLACEMENT

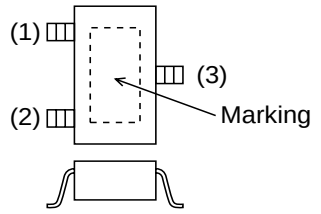
Parts marked with " ⚠ " are important for maintaining the safety of the set.Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER **2. REF. NO.**
3. PART NO. **4. DESCRIPTION**
5. PRICE CODE

HOW TO IDENTIFY CHIP TRANSISTORS AND DIODES BY ITS MARKING



(1) Base/Input
(2) Emitter/Ground
(3) Collector/Output

Fig. 1

Package	Marking	Parts No.
Fig. 1	FQ	VS2SA1037KQ-1
Fig. 1	BQ	VS2SC2412KQ-1

MARK ★: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES

(NOT REPLACEMENT ITEM)

	DUNTKB106TEV7	-	Operation Unit	—
	DUNTKB107TEV5	-	Back Light Unit	—
	DUNTKB110TEVH	-	Main Unit (AA350A/M, AA360A)	—
	DUNTKB110TEVJ	-	Main Unit (AA350L)	—
	DUNTKB110TEWE	-	Main Unit (AA350W)	—
	DUNTKB110TEVK	-	Main Unit (AA352W)	—
	DUNTKB110TEVL	-	Main Unit (AA370A)	—
	DUNTKB110TEVN	-	Main Unit (AA550A, AA560A)	—
	DUNTKB110TEVP	-	Main Unit (AA550L)	—
	DUNTKB110TEVY	-	Main Unit (AA550W)	—
	DUNTKB110TEVQ	-	Main Unit (AA570A)	—
	DUNTKB205TEV1	-	SECAM/NTSC SKEW Unit (AA370A)	—
	DUNTKB205TEV4	-	SECAM/NTSC SKEW Unit (AA550A/L/W, AA560A)	—
	DUNTKB205TEV3	-	SECAM/NTSC SKEW Unit (AA570A)	—

DUNTKB106TEV7
Operation Unit

RESISTORS

R881	VRS-CY1JF103JS	V	10k	1/16W	Metal Oxide	AA
R882	VRS-CY1JF103JS	V	10k	1/16W	Metal Oxide	AA
R883	VRS-CY1JF223JS	V	22k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

MISCELLANEOUS PARTS

S881	QSW-K0004AJZZ+	V	Switch, PLAY	AB
S882	QSW-K0004AJZZ+	V	Switch, STOP	AB
S884	QSW-K0004AJZZ+	V	Switch, REW	AB
S886	QSW-K0004AJZZ+	V	Switch, FF	AB
SC881	QSOCZ0450CEZZ	V	Socket, 4pin(AO)	AC

DUNTKB107TEV5
BACK LIGHT Unit

TRANSISTORS

Q851	VS2PD601AR/-1Y	V	2PD601AR			AB
Q852	VS2PD601AR/-1Y	V	2PD601AR			AB

DIODES

D8854	RH-PX0433GEZZ+	V	PhotoDiode			AF
D8855	RH-PX0433GEZZ+	V	PhotoDiode			AF

RESISTORS

R8853	VRD-RA2BE271JY	V	270	1/8W	Carbon	AA
R8854	VRD-RA2BE331JY	V	330	1/8W	Carbon	AA
R8855	VRS-CY1JF223JS	V	22k	1/16W	Metal Oxide	AA
R8856	VRS-CY1JF223JS	V	22k	1/16W	Metal Oxide	AA
R8857	VRD-RA2BE271JY	V	270	1/8W	Carbon	AA
R8858	VRD-RA2BE331JY	V	330	1/8W	Carbon	AA

MISCELLANEOUS PARTS

P883	QPLGZ0457GEZZ	V	Plug, 4pin(AM)	AD

DUNTKB110TE$_{VH/VJ/VK/VL/VN/VP/VQ/VY/WE}$
MAIN Unit

TUNER

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED ASAN ASSEMBLY BUT NOT INDEPENDENTLY.

TU101	VTUATMDG2-801	V	Tuner (except AA550W)	BF
TU101	VTUATMDG2-836	V	Tuner (AA550W)	AF

INTEGRATED CIRCUITS

IC201	VHiHA8317F/-1	V	HA118317F	BA
IC202	VHiMM1111XF1EY	V	MM1111XFBE (AA370A,AA570A)	AF
IC601	VHiTC4S66F/-1Y	V	TC4S66F (except AA370A)	AD
IC701	RH-iXA047WJZZQ	V	MN101D06FTD	AX
IC703	VHiPST3225N1EY	V	PST3225	AD
IC710	VHiBR24C08F-1Y	V	BR24C08F-E2	AF
IC903	VHiKIA431//-1+	V	KIA431	AE
IC5061	VHiTC4S66F/-1Y	V	TC4S66F (AA370A,AA570A)	AD
IC8001	VHiBU9716BK-1Q	V	BU9716BK	AM

TRANSITORS

Q208	VS2PB709AR/-1Y	V	2PB709AR(AA370A,AA570A)	AB
Q209	VS2PD601AR/-1Y	V	2PD601AR(AA370A,AA570A)	AB
Q251	VS2PB709AR/-1Y	V	2PB709AR	AB
Q302	VSKRC103S//-1Y	V	KRC103S (AA550A/L/W,AA560A,AA570A)	AA
Q304	VS2PD601AR/-1Y	V	2PD601AR	AB
Q502	VSKRA102S//-1Y	V	KRA102S(except AA370A)	AA
Q503	VSKRC102S//-1Y	V	KRC102S(except AA370A)	AA
Q602	VS2SC3203Y/-1+	V	2SC3203Y	AC
Q603	VS2PD601AR/-1Y	V	2PD601AR	AB
Q604	VSKRA103S//-1Y	V	KRA103S	AA
Q605	VS2PD601AR/-1Y	V	2PD601AR	AB
Q606	VS2PD601AR/-1Y	V	2PD601AR	AB
Q613	VS2PD601AR/-1Y	V	2PD601AR	AB
Q652	VS2PD601AR/-1Y	V	2PD601AR	AB
Q658	VSKRA104S//-1Y	V	KRA104S	AA
Q704	VS2PB709AR/-1Y	V	2PB709AR	AB
Q705	VS2PD601AR/-1Y	V	2PD601AR	AB
Q706	VS2PB709AR/-1Y	V	2PB709AR	AB
Q710	VS2PD601AR/-1Y	V	2PD601AR	AB

Ref. No.	Part No.	★	Description	Code
Q711	VS2PD601AR/-1Y	V	2PD601AR	AB
⚠ Q901	VS2SK2848//-1	V	2SK2848	AH
⚠ Q902	VS2SC2001LK-1+	V	2SC2001LK	AA
Q903	VS2PD601AR/-1Y	V	2PD601AR	AB
Q961	VS2SC3203Y/-1+	V	2SC3203Y	AC
Q966	VS2SB1443TV1E+	V	2SB1443TV	AE
Q967	VSKRC102S//-1Y	V	KRC102S	AA
Q971	VS2PB709AR/-1Y	V	2PB709AR	AB
Q972	VSKRC103S//-1Y	V	KRC103S	AA
DIODES				
D701	RH-PX0270GEZZ+	V	PhotoDiode	AC
D702	VHD1SS119//-1Y	V	1SS119	AA
D706	RH-PX0252GEZZ	V	GP1S563	AF
D707	RH-PX0252GEZZ	V	GP1S563	AF
D710	VHD1SS119//-1Y	V	1SS119	AA
D712	VHD1SS119//-1Y	V	1SS119	AA
D721	VHD1SS119//-1Y	V	1SS119	AA
D731	VHD1SS119//-1Y	V	1SS119	AA
⚠ D901	VHDRL1N4005-1Y	V	RL1N4005	AC
⚠ D902	VHDRL1N4005-1Y	V	RL1N4005	AC
⚠ D903	VHDRL1N4005-1Y	V	RL1N4005	AC
⚠ D904	VHDRL1N4005-1Y	V	RL1N4005	AC
D905	VHDERA2206/-1Y	V	ERA2206	AC
D910	VHD1SS119//-1Y	V	1SS119	AA
D911	RH-EX0613GEZZY	V	Zener Diode	AB
D912	RH-EX0645GEZZY	V	Zener Diode	AB
D914	RH-EX0622GEZZY	V	Zener Diode	AB
⚠ D931	VHD10ELS4//-1Y	V	10ELS4	AD
⚠ D932	VHD10ELS4//-1Y	V	10ELS4	AD
⚠ D933	VHD15DF1FC/1E	V	15DF1FC	AD
⚠ D934	VHDRK14L+++-X	V	RK14L+++	AD
D961	VHD1SS119//-1Y	V	1SS119	AA
D963	RH-EX0631GEZZY	V	Zener Diode	AA
D971	RH-EX0613GEZZY	V	Zener Diode	AB
D972	RH-EX0677GEZZY	V	Zener Diode	AC
IC901	RH-FX0001AJZZ	V	TCET1103G	AE
IC902	RH-FX0001AJZZ	V	TCET1103G	AE
Q701	RH-PX0233GEZZ	V	PT493FL2	AD
Q702	RH-PX0233GEZZ	V	PT493FL2	AD
⚠ VA903	RH-VX0048CEZZ	V	Varistor	AE
PACKAGED CIRCUITS				
X501	RCRSB0204GEZZ+	V	Crystal	AG
X502	RCRSB0232GEZZ+	V	Crystal	AG
X701	RCRSB0205GEZZ+	V	Crystal	AM
X702	RCRSB0138GEZZ	V	Crystal	AD
COILS AND TRANSFORMERS				
FL201	RCILF0010AJZZ	V	Coil (AA370A,AA570A)	AF
JA522	VP-XF101J0000Y	V	Peaking 100µH	AB
L102	VP-CF100K0000Y	V	Peaking 10µH	AB
L104	VP-MK101K0000+	V	Peaking 100µH	AB
L111	VP-XF2R7K0000Y	V	Peaking 2.7µH	AB
L201	VP-XF221K0000+	V	Peaking 220µH	AB
L203	VP-XF150K0000Y	V	Peaking 15µH (AA370A,AA570A)	AB
L253	VP-XF101K0000Y	V	Peaking 100µH	AB
L301	VP-MK101K0000+	V	Peaking 100µH	AB
L302	VP-XF180K0000Y	V	Peaking 18µH	AB
L501	VP-XF560K0000+	V	Peaking 56µH	AB
L502	VP-XF101K0000+	V	Peaking 100µH (except AA370A)	AB
L503	VP-XF120K0000+	V	Peaking 12µH	AB
L602	VP-DF221K0000Y	V	Peaking 220µH	AB
⚠ L901	RCILF0009AJZZ	V	Coil	AK
L933	RCILP0171CEZZ+	V	Coil	AD
L934	RCILP0175CEZZ+	V	Coil	AD
L5061	VP-XF120K0000+	V	Peaking 12µH (AA370A,AA570A)	AB
R133	VP-XF100K0000Y	V	Peaking 10µH	AB
T601	RTRNH0098GEZZ	V	OSC. Transformer	AE
⚠ T901	RTRNWA068WJZZ	V	Transformer	AK

Ref. No.	Part No.	★	Description	Code
CAPACITORS				
C101	VCKYCY1HB221KS	V	220p 50V Ceramic	AA
C103	VCEA9A0JW227M+	V	220 6.3V Electrolytic	AB
C105	VCEA0A0JW477M+	V	470 6.3V Electrolytic	AC
C106	VCKYCY1HF103ZS	V	0.01 50V Ceramic	AA
C107	VCKYCY1HF103ZS	V	0.01 50V Ceramic	AA
C112	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C113	VCEA9M1HW105M+	V	1 50V Electrolytic	AB
C114	VCCCCY1HH271JS	V	270p 50V Ceramic	AA
C115	VCCSD41HL470JY	V	47p 50V Ceramic	AA
C201	VCEA9M0JW476M+	V	47 6.3V Electrolytic	AB
C202	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C203	VCCCCY1HH151JS	V	150p 50V Ceramic	AA
C204	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C205	VCCCCY1HH330JS	V	33p 50V Ceramic (AA350A/L/M/W, AA352W, AA360A)	AA
C205	VCCCCY1HH220JS	V	22p 50V Ceramic (AA370A,AA550A/L/W,AA560A, AA570A)	AA
C206	VCKYCY1CF104ZS	V	0.1 16V Ceramic (except AA370A,AA570A)	AA
C207	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C208	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C209	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C210	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C211	VCEA9M1HW335M+	V	3.3 50V Electrolytic	AB
C212	VCEA9M1CW106M+	V	10 16V Electrolytic	AB
C213	VCEA9M1HW225M+	V	2.2 50V Electrolytic	AB
C215	VCEA9M1HW105M+	V	1 50V Electrolytic	AB
C216	VCEA9M1HW105M+	V	1 50V Electrolytic (AA352W,AA550/L/W,AA560A, AA570A)	AB
C217	VCEA9M0JW476M+	V	47 6.3V Electrolytic	AB
C218	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C219	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C220	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C221	VCEA9M1CW106M+	V	10 16V Electrolytic	AB
C223	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C227	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C228	VCEA9M1HW105M+	V	1 50V Electrolytic	AB
C230	VCKYCY1CF104ZS	V	0.1 16V Ceramic (AA370A,AA570A)	AA
C231	VCEA9M0JW476M+	V	47 6.3V Electrolytic (AA370A,AA570A)	AB
C232	VCCCCY1HH390JS	V	39p 50V Ceramic (AA370A,AA570A)	AA
C233	VCCCCY1HH121JS	V	120p 50V Ceramic (AA370A,AA570A)	AA
C234	VCEA9M1CW106M+	V	10 16V Electrolytic (AA370A,AA570A)	AB
C235	VCEA9M1CW106M+	V	10 16V Electrolytic (AA370A,AA570A)	AB
C237	VCKYCY1CF104ZS	V	0.1 16V Ceramic (AA370A,AA570A)	AA
C252	VCEA0A0JW337M+	V	330 6.3V Electrolytic	AC
C253	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C301	VCEA9M0JW476M+	V	47 6.3V Electrolytic	AB
C302	VCKYCY1CF104ZS	V	0.1 16V Ceramic	AA
C303	VCKYCY1EB103KS	V	0.01 25V Ceramic	AA
C304	VCKYCY1EB103KS	V	0.01 25V Ceramic	AA
C305	VCKYCY1EB103KS	V	0.01 25V Ceramic	AA
C306	VCKYCY1EB103KS	V	0.01 25V Ceramic	AA
C307	VCKYCY1EB103KS	V	0.01 25V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C308	VCKYCY1EB103KS	V	0.01 25V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C309	VCKYCY1EB103KS	V	0.01 25V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C310	VCKYCY1EB103KS	V	0.01 25V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C311	VCKYCY1HF103ZS	V	0.01 50V Ceramic	AA
C313	VCKYCY1HF103ZS	V	0.01 50V Ceramic	AA
C316	VCCCCY1HH180JS	V	18p 50V Ceramic	AA
C317	VCCCCY1HH120JS	V	12p 50V Ceramic	AA
C318	VCCCCY1HH120JS	V	12p 50V Ceramic	AA
C319	VCCCCY1HH270JS	V	27p 50V Ceramic (AA350A/L/M/W,AA352W, AA360A)	AA

Ref. No.	Part No.	★		Description			Code
C319	VCCCCY1HH100DS	V	10p	50V	Ceramic		AA
			(AA370A,AA550A/L/W,AA560A,AA570A)				
C320	VCCCCY1HH100DS	V	10p	50V	Ceramic		AA
			(AA550A/L/W,AA560A,AA570A)				
C321	VCKYCY1HB102KS	V	1000p	50V	Ceramic		AA
			(AA550A/L/W,AA560A,AA570A)				
C324	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
			(AA350A/L/M/W,AA352W,AA360A,AA370A)				
C325	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
			(AA350A/L/M/W,AA352W,AA360A,AA370A)				
C501	VCEA9M0JW107M+	V	100	6.3V	Electrolytic		AB
C502	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C503	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C504	VCEA9M1HW225M+	V	2.2	50V	Electrolytic		AB
C505	VCKYCY1EB223KS	V	0.022	25V	Ceramic		AA
C506	VCEA9M1HW474M+	V	0.47	50V	Electrolytic		AB
C507	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C508	VCEA9M1HW475M+	V	4.7	50V	Electrolytic		AB
C509	VCKYD41CY103NY	V	0.01	16V	Ceramic		AB
C510	VCCCCY1HH270JS	V	27p	50V	Ceramic		AA
			(except AA370A)				
C511	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C512	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C513	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C514	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C515	VCKYCY1HB331KS	V	330p	50V	Ceramic		AA
C516	VCEA9M1HW105M+	V	1	50V	Electrolytic		AB
C517	VCEA9M1HW335M+	V	3.3	50V	Electrolytic		AB
C518	VCKYCY1HF333ZS	V	0.033	50V	Ceramic		AA
C521	VCCCCY1HH5R0CS	V	5.0p	50V	Ceramic		AA
C522	VCCCCY1HH120JS	V	12p	50V	Ceramic		AA
C602	VCKYCY1EB103KS	V	0.01	25V	Ceramic		AA
C603	VCEA9M1CW106M+	V	10	16V	Electrolytic		AB
C604	VCKYCY1HB821KS	V	820p	50V	Ceramic		AA
C605	VCEA9M1CW106M+	V	10	16V	Electrolytic		AB
C606	VCEA9M1HW475M+	V	4.7	50V	Electrolytic		AB
C607	VCEA9M1HW475M+	V	4.7	50V	Electrolytic		AB
C608	VCEA9M0JW226M+	V	22	6.3V	Electrolytic		AB
C610	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C611	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C612	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
			(AA352W,AA550/L/W,AA560A,AA570A)				
C617	VCEA9M1CW476M+	V	47	16V	Electrolytic		AB
C618	VCKYCY1EB103KS	V	0.01	25V	Ceramic		AA
C619	VCKYCY1EB103KS	V	0.01	25V	Ceramic		AA
C620	VCEA9M1CW106M+	V	10	16V	Electrolytic		AB
C621	VCQPYA2AA562J+	V	5600p	100V	Mylar		AC
C622	VCKYCY1HB222KS	V	2200p	50V	Ceramic		AA
			(AA370A)				
C622	VCKYCY1HB102KS	V	1000p	50V	Ceramic		AA
			(except AA370A)				
C630	VCCCCY1HH101JS	V	100p	50V	Ceramic		AA
C631	VCCCCY1HH101JS	V	100p	50V	Ceramic		AA
C632	VCCCCY1HH221JS	V	220p	50V	Ceramic		AA
C634	VCEA9M1HW475M+	V	4.7	50V	Electrolytic		AB
C702	VCEA9M0JW476M+	V	47	6.3V	Electrolytic		AB
C703	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C704	VCEA9M0JW476M+	V	47	6.3V	Electrolytic		AB
C705	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C706	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C707	VCCCCY1HH7R0DS	V	7.0p	50V	Ceramic		AA
C708	VCCCCY1HH100DS	V	10p	50V	Ceramic		AA
C709	VCCCCY1HH180JS	V	18p	50V	Ceramic		AA
C710	VCCCCY1HH180JS	V	18p	50V	Ceramic		AA
C713	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C714	VCCCCY1HH330JS	V	33p	50V	Ceramic		AA
C715	VCCCCY1HH101JS	V	100p	50V	Ceramic		AA
C716	VCKYCY0JB105KY	V	1	6.3V	Ceramic		AC
C717	VCKYCY0JF105ZS	V	1	6.3V	Ceramic		AB
C718	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C721	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C722	VCEA9M0JW107M+	V	100	6.3V	Electrolytic		AB
C723	VCKYCY1HF473ZS	V	0.047	50V	Ceramic		AA
C724	VCKYCY1HF473ZS	V	0.047	50V	Ceramic		AA
C725	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C726	VCKYCY1HB102KS	V	1000p	50V	Ceramic		AA
C728	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C729	VCKYCY1HB222KS	V	2200p	50V	Ceramic		AA
C730	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C731	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C732	VCEA9M0JW226M+	V	22	6.3V	Electrolytic		AB
C733	VCKYCY1HF223ZS	V	0.022	50V	Ceramic		AA
C734	VCKYCY1HB102KS	V	1000p	50V	Ceramic		AA
C735	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C736	VCCCCY1HH680JS	V	68p	50V	Ceramic		AA
C738	VCKYCY1HB221KS	V	220p	50V	Ceramic		AA
C741	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C742	VCEA9M0JW226M+	V	22	6.3V	Electrolytic		AB
C743	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C744	VCKYCY1EB103KS	V	0.01	25V	Ceramic		AA
			(AA370A)				
C744	VCKYCY1HB222KS	V	2200p	50V	Ceramic		AA
			(except AA370A)				
C745	VCKYD41HB682KY	V	6800p	50V	Ceramic		AB
			(except AA370A)				
C750	VCEA2A1VW107M+	V	100	35V	Electrolytic		AC
C751	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C752	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C754	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C755	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C774	VCEA9M1CW336M+	V	33	16V	Electrolytic		AB
C783	VCKYCY1HB102KS	V	1000p	50V	Ceramic		AA
C784	VCKYCY1HB102KS	V	1000p	50V	Ceramic		AA
C785	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C786	VCEA9M1HW105M+	V	1	50V	Electrolytic		AB
C787	VCEA0A0JW477M+	V	470	6.3V	Electrolytic		AC
C789	RC-EZ0380GEZZ	V	Capacitor				AM
C791	VCKYCY1CF104ZS	V	0.1	16V	Ceramic		AA
C797	VCEA9A0JW476M+	V	47	6.3V	Electrolytic		AB
C805	VCEA9M0JW476M+	V	47	6.3V	Electrolytic		AB
⚠ C902	RC-FZ028SCEZZ	V	0.1	AC250V	Mylar		AD
⚠ C903	RC-KZ0105GEZZ	V	2200p	AC250V	Ceramic		AD
⚠ C905	RC-KZ0105GEZZ	V	2200p	AC250V	Ceramic		AD
⚠ C906	RC-EZ0437GEZZ	V	68	200V	Electrolytic		AK
C907	VCFYAA2GA473K+	V	0.047	400V	Mylar		AE
C908	RC-KZ0112CEZZ+	V	100p	500V	Ceramic		AB
C911	VCQYTA1HM272K+	V	2700p	50V	Mylar		AB
C914	VCQYTA1HM152K+	V	1500p	50V	Mylar		AB
⚠ C931	VCEA0M1JW476M+	V	47	63V	Electrolytic		AC
⚠ C932	VCEA0A1VW477M+	V	470	35V	Electrolytic		AB
⚠ C933	RC-EZ0439GEZZ	V	2200	16V	Electrolytic		AF
⚠ C934	RC-EZ1075CEZZ	V	2200	10V	Electrolytic		AF
⚠ C938	VCEA0A1EW107M+	V	100	25V	Electrolytic		AC
⚠ C939	VCEA0A0JW108M+	V	1000	6.3V	Electrolytic		AC
C961	VCEA9M1CW106M+	V	10	16V	Electrolytic		AB
C962	VCEA9M1CW106M+	V	10	16V	Electrolytic		AB
C967	VCEA9M1CW476M+	V	47	16V	Electrolytic		AB
C972	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C5062	VCCCCY1HH101JS	V	100p	50V	Ceramic		AA
			(AA370A,AA570A)				
C8001	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C8002	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C8003	VCKYCY1HF103ZS	V	0.01	50V	Ceramic		AA
C8004	VCKYCY1HB102KS	V	1000p	50V	Ceramic		AA
C8005	VCEA9M1CW106M+	V	10	16V	Electrolytic		AB
C9335	VCEA9M1HW105M+	V	1	50V	Electrolytic		AB
C9336	VCEA9M1HW105M+	V	1	50V	Electrolytic		AB

RESISTORS

JA228	VRD-RA2BE331JY	V	330	1/8W	Carbon		AA
RJ902	VRS-CY1JF000JS	V	0	1/16W	Metal Oxide		AA
RJ904	VRS-CY1JF000JS	V	0	1/16W	Metal Oxide		AA
RJ907	VRS-CY1JF000JS	V	0	1/16W	Metal Oxide		AA
			(except AA370A)				
RJ932	VRS-CY1JF000JS	V	0	1/16W	Metal Oxide		AA
R19	VRS-CY1JF000JS	V	0	1/16W	Metal Oxide		AA
R36	VRS-CY1JF000JS	V	0	1/16W	Metal Oxide		AA
			(AA370A,AA570A)				
R104	VRD-RA2BE102JY	V	1k	1/8W	Carbon		AA
R105	VRD-RA2BE102JY	V	1k	1/8W	Carbon		AA

Ref. No.	Part No.	★	Description	Code
R108	VRS-CY1JF000JS	V	0 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R111	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide	AA
R112	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide	AA
R127	VRS-CY1JF000JS	V	0 1/16W Metal Oxide	AA
R152	VRD-RA2BE561JY	V	560 1/8W Carbon	AA
R153	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R154	VRS-CY1JF822JS	V	8.2k 1/16W Metal Oxide	AA
R155	VRD-RA2BE224JY	V	220k 1/8W Carbon	AA
R164	VRS-CY1JF000JS	V	0 1/16W Metal Oxide	AA
R201	VRS-CY1JF682JS	V	6.8k 1/16W Metal Oxide	AA
R202	VRS-CY1JF182JS	V	1.8k 1/16W Metal Oxide	AA
R203	VRS-CY1JF562JS	V	5.6k 1/16W Metal Oxide (AA350A/L/M/W,AA352W,AA360A)	AA
R203	VRS-CY1JF222JS	V	2.2k 1/16W Metal Oxide (AA370A,AA570A)	AA
R203	VRS-CY1JF332JS	V	3.3k 1/16W Metal Oxide (AA550A/L/W,AA560A)	AA
R207	VRS-CY1JF102JS	V	1k 1/16W Metal Oxide	AA
R211	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide	AA
R212	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide	AA
R225	VRS-CY1JF750JS	V	75 1/16W Metal Oxide	AA
R227	VRS-CY1JF750JS	V	75 1/16W Metal Oxide	AA
R234	VRS-CY1JF123JS	V	12k 1/16W Metal Oxide (AA370A,AA570A)	AA
R235	VRS-CY1JF391JS	V	390 1/16W Metal Oxide (AA370A,AA570A)	AA
R236	VRS-CY1JF391JS	V	390 1/16W Metal Oxide (AA370A,AA570A)	AA
R237	VRS-CY1JF272JS	V	2.7k 1/16W Metal Oxide (AA370A,AA570A)	AA
R238	VRS-CY1JF471JS	V	470 1/16W Metal Oxide (AA370A,AA570A)	AA
R239	VRS-CY1JF391JS	V	390 1/16W Metal Oxide (AA370A,AA570A)	AA
R240	VRS-CY1JF103JS	V	10k 1/16W Metal Oxide (AA370A,AA570A)	AA
R252	VRD-RA2EE331JY	V	330 1/4W Carbon	AA
R253	VRS-CY1JF101JS	V	100 1/16W Metal Oxide	AA
R254	VRS-CY1JF183JS	V	18k 1/16W Metal Oxide	AA
R282	VRS-CY1JF750JS	V	75 1/16W Metal Oxide (AA352W,AA550/L/W,AA560A,AA570A)	AA
R286	VRS-CY1JF470JS	V	47 1/16W Metal Oxide	AA
R301	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R302	VRS-CY1JF561JS	V	560 1/16W Metal Oxide	AA
R303	VRS-CY1JF392JS	V	3.9k 1/16W Metal Oxide	AA
R309	VRS-CY1JF222JS	V	2.2k 1/16W Metal Oxide	AA
R350	VRS-CY1JF000JS	V	0 1/16W Metal Oxide (AA350A/L/M/W,AA352W,AA360A,AA370A)	AA
R501	VRS-CY1JF102JS	V	1k 1/16W Metal Oxide	AA
R502	VRS-CY1JF273JS	V	27k 1/16W Metal Oxide	AA
R504	VRS-CY1JF221JS	V	220 1/16W Metal Oxide	AA
R505	VRS-CY1JF224JS	V	220k 1/16W Metal Oxide	AA
R601	VRS-CY1JF822JS	V	8.2k 1/16W Metal Oxide (AA370A)	AA
R601	VRS-CY1JF183JS	V	18k 1/16W Metal Oxide (except AA370A)	AA
R602	VRS-CY1JF274JS	V	270k 1/16W Metal Oxide	AA
R603	VRS-CY1JF221JS	V	220 1/16W Metal Oxide	AA
R604	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R605	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide	AA
R606	VRS-CY1JF273JS	V	27k 1/16W Metal Oxide	AA
R609	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R610	VRS-CY1JF183JS	V	18k 1/16W Metal Oxide	AA
R611	VRS-CY1JF393JS	V	39k 1/16W Metal Oxide	AA
R612	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide	AA
R613	VRS-CY1JF393JS	V	39k 1/16W Metal Oxide (AA352W,AA550/L/W,AA560A,AA570A)	AA
R614	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide (AA352W,AA550/L/W,AA560A,AA570A)	AA
R615	VRD-RA2BE153JY	V	15k 1/8W Carbon	AA
R616	VRS-CY1JF183JS	V	18k 1/16W Metal Oxide (except AA370A)	AA
R618	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R619	VRS-CY1JF470JS	V	47 1/16W Metal Oxide	AA
R620	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide	AA
R621	VRD-RA2EE4R7JY	V	4.7 1/4W Carbon	AA
R623	VRS-CY1JF273JS	V	27k 1/16W Metal Oxide	AA
R624	VRS-CY1JF472JS	V	4.7k 1/16W Metal Oxide	AA
R625	VRS-CY1JF222JS	V	2.2k 1/16W Metal Oxide	AA
R626	VRS-CY1JF101JS	V	100 1/16W Metal Oxide	AA
R627	VRS-CY1JF392JS	V	3.9k 1/16W Metal Oxide	AA
R631	VRS-CY1JF000JS	V	0 1/16W Metal Oxide	AA
R632	VRS-CY1JF104JS	V	100k 1/16W Metal Oxide	AA
R633	VRD-RA2BE104JY	V	100k 1/8W Carbon	AA
R634	VRS-CY1JF000JS	V	0 1/16W Metal Oxide	AA
R637	VRS-CY1JF682JS	V	6.8k 1/16W Metal Oxide	AA
R638	VRD-RA2BE561JY	V	560 1/8W Carbon	AA
R686	VRS-CY1JF272JS	V	2.7k 1/16W Metal Oxide	AA
R691	VRD-RA2BE102JY	V	1k 1/8W Carbon	AA
R701	VRD-RA2BE104JY	V	100k 1/8W Carbon (except AA370A,AA570A)	AA
R702	VRS-CY1JF102JS	V	1k 1/16W Metal Oxide	AA
R704	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide	AA
R705	VRS-CY1JF153JS	V	15k 1/16W Metal Oxide	AA
R706	VRS-CY1JF564JS	V	560k 1/16W Metal Oxide	AA
R708	VRS-CY1JF332JS	V	3.3k 1/16W Metal Oxide	AA
R709	VRS-CY1JF222JS	V	2.2k 1/16W Metal Oxide	AA
R710	VRS-CY1JF822JS	V	8.2k 1/16W Metal Oxide	AA
R713	VRS-CY1JF102JS	V	1k 1/16W Metal Oxide	AA
R714	VRS-CY1JF223JS	V	22k 1/16W Metal Oxide	AA
R715	VRS-CY1JF472JS	V	4.7k 1/16W Metal Oxide	AA
R716	VRS-CY1JF182JS	V	1.8k 1/16W Metal Oxide	AA
R717	VRS-CY1JF123JS	V	12k 1/16W Metal Oxide	AA
R718	VRS-CY1JF563JS	V	56k 1/16W Metal Oxide	AA
R719	VRS-CY1JF183JS	V	18k 1/16W Metal Oxide	AA
R721	VRS-CY1JF223JS	V	22k 1/16W Metal Oxide	AA
R722	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R724	VRS-CY1JF104JS	V	100k 1/16W Metal Oxide	AA
R725	VRS-CY1JF332JS	V	3.3k 1/16W Metal Oxide	AA
R726	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R727	VRS-CY1JF154JS	V	150k 1/16W Metal Oxide	AA
R728	VRS-CY1JF332JS	V	3.3k 1/16W Metal Oxide	AA
R730	VRS-CY1JF101JS	V	100 1/16W Metal Oxide	AA
R731	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R732	VRD-RA2BE154JY	V	150k 1/8W Carbon	AA
R733	VRS-CY1JF105JS	V	1M 1/16W Metal Oxide	AA
R735	VRS-CY1JF104JS	V	100k 1/16W Metal Oxide	AA
R736	VRS-CY1JF822JS	V	8.2k 1/16W Metal Oxide	AA
R737	VRS-CY1JF103JS	V	10k 1/16W Metal Oxide	AA
R738	VRS-CY1JF103JS	V	10k 1/16W Metal Oxide	AA
R739	VRD-RA2BE102JY	V	1k 1/8W Carbon	AA
R741	VRS-CY1JF123JS	V	12k 1/16W Metal Oxide	AA
R742	VRS-CY1JF223JS	V	22k 1/16W Metal Oxide	AA
R743	VRS-CY1JF563JS	V	56k 1/16W Metal Oxide	AA
R744	VRS-CY1JF223JS	V	22k 1/16W Metal Oxide	AA
R745	VRD-RA2BE102JY	V	1k 1/8W Carbon	AA
R746	VRS-CY1JF182JS	V	1.8k 1/16W Metal Oxide	AA
R747	VRS-CY1JF681JS	V	680 1/16W Metal Oxide	AA
R748	VRS-CY1JF000JS	V	0 1/16W Metal Oxide	AA
R750	VRD-RA2BE473JY	V	47k 1/8W Carbon	AA
R751	VRD-RA2BE562JY	V	5.6k 1/8W Carbon	AA
R752	VRD-RA2BE103JY	V	10k 1/8W Carbon	AA
R754	VRD-RA2EE181JY	V	180 1/4W Carbon	AA
R755	VRD-RA2BE103JY	V	10k 1/8W Carbon	AA
R756	VRS-CY1JF103JS	V	10k 1/16W Metal Oxide	AA
R760	VRG-SC2EB1R0J+	V	1 1/4W FuseResistor	AB
R771	VRS-CY1JF103JS	V	10k 1/16W Metal Oxide	AA
R781	VRS-CY1JF103JS	V	10k 1/16W Metal Oxide	AA
R782	VRS-CY1JF103JS	V	10k 1/16W Metal Oxide	AA
R783	VRD-RA2BE102JY	V	1k 1/8W Carbon	AA
R785	VRD-RA2BE391JY	V	390 1/8W Carbon	AA
R786	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R788	VRS-CY1JF104JS	V	100k 1/16W Metal Oxide	AA
R789	VRD-RA2BE391JY	V	390 1/8W Carbon	AA
R790	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R792	VRS-CY1JF104JS	V	100k 1/16W Metal Oxide	AA
R795	VRD-RA2EE151JY	V	150 1/4W Carbon	AA
R796	VRD-RM2HD271JY	V	270 1/2W Carbon	AA
R809	VRD-RA2BE101JY	V	100 1/8W Carbon	AA

Ref. No.	Part No.	★	Description	Code
R811	VRS-CY1JF183JS	V	18k 1/16W Metal Oxide	AA
R813	VRS-CY1JF272JS	V	2.7k 1/16W Metal Oxide	AA
R814	VRS-CY1JF332JS	V	3.3k 1/16W Metal Oxide	AA
R815	VRS-CY1JF000JS	V	0 1/16W Metal Oxide	AA
R816	VRD-RA2BE822JY	V	8.2k 1/8W Carbon	AA
R818	VRS-CY1JF472JS	V	4.7k 1/16W Metal Oxide	AA
R821	VRS-CY1JF183JS	V	18k 1/16W Metal Oxide	AA
R823	VRS-CY1JF272JS	V	2.7k 1/16W Metal Oxide	AA
R824	VRS-CY1JF332JS	V	3.3k 1/16W Metal Oxide	AA
R825	VRS-CY1JF472JS	V	4.7k 1/16W Metal Oxide	AA
R826	VRS-CY1JF822JS	V	8.2k 1/16W Metal Oxide	AA
R827	VRD-RA2BE333JY	V	33k 1/8W Carbon	AA
R828	VRD-RA2BE563JY	V	56k 1/8W Carbon	AA
R835	VRD-RA2BE103JY	V	10k 1/8W Carbon	AA
R836	VRD-RA2BE103JY	V	10k 1/8W Carbon	AA
R837	VRD-RA2BE103JY	V	10k 1/8W Carbon	AA
R841	VRD-RA2BE221JY	V	220 1/8W Carbon	AA
R842	VRD-RA2BE221JY	V	220 1/8W Carbon	AA
R843	VRD-RA2BE221JY	V	220 1/8W Carbon	AA
R877	VRS-CY1JF104JS	V	100k 1/16W Metal Oxide	AA
⚠ R901	RR-HZ0014GEZZY	V	12M	AE
⚠ R902	VRD-RA2HD105JY	V	1M 1/2W Carbon	AA
R904	RR-SZ0007GEZZ	V	68k	AB
R905	VRD-RA2HD474JY	V	470k 1/2W Carbon	AA
R906	VRD-RM2HD274JY	V	270k 1/2W Carbon	AA
R907	VRN-VV3DBR56J	V	0.56 2W Metal Film	AA
R909	VRS-CY1JF563JS	V	56k 1/16W Metal Oxide	AA
R910	VRD-RM2HD152JY	V	1.5k 1/2W Carbon	AA
R911	VRS-CY1JF101JS	V	100 1/16W Metal Oxide	AA
R914	VRS-CY1JF224JS	V	220k 1/16W Metal Oxide	AA
R916	VRS-CY1JF333JS	V	33k 1/16W Metal Oxide	AA
R917	VRD-RA2BE223JY	V	22k 1/8W Carbon	AA
R930	VRD-RA2BE102JY	V	1k 1/8W Carbon	AA
R931	VRS-CY1JF561JS	V	560 1/16W Metal Oxide	AA
R932	VRD-RA2BE331JY	V	330 1/8W Carbon	AA
R933	VRS-CY1JF122JS	V	1.2k 1/16W Metal Oxide	AB
R934	VRS-CY1JF152JS	V	1.5k 1/16W Metal Oxide	AA
R935	VRS-CY1JF102JS	V	1k 1/16W Metal Oxide	AA
R936	VRD-RA2BE101JY	V	100 1/8W Carbon	AA
R938	VRS-CY1JF000JS	V	0 1/16W Metal Oxide	AA
R941	VRS-CY1JF273JS	V	27k 1/16W Metal Oxide	AA
R942	VRS-CY1JF104JS	V	100k 1/16W Metal Oxide	AA
R943	VRD-RA2BE152JY	V	1.5k 1/8W Carbon	AA
R961	VRD-RA2BE561JY	V	560 1/8W Carbon	AA
R963	VRD-RM2HD680JY	V	68 1/2W Carbon	AA
R965	VRD-RA2BE103JY	V	10k 1/8W Carbon	AA
R966	VRS-CY1JF103JS	V	10k 1/16W Metal Oxide	AA
R967	VRD-RA2EE391JY	V	390 1/4W Carbon	AA
R970	VRS-CY1JF222JS	V	2.2k 1/16W Metal Oxide	AA
R971	VRD-RM2HD471JY	V	470 1/2W Carbon	AA
R973	VRD-RA2BE333JY	V	33k 1/8W Carbon	AA
R8001	VRS-CY1JF472JS	V	4.7k 1/16W Metal Oxide	AA
R8002	VRS-CY1JF472JS	V	4.7k 1/16W Metal Oxide	AA
R8003	VRS-CY1JF472JS	V	4.7k 1/16W Metal Oxide	AA
R8004	VRS-CY1JF473JS	V	47k 1/16W Metal Oxide	AA
R8005	VRS-CY1JF000JS	V	0 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

⚠ ACC901	QACCV2009AJZZ	V	AC Cord (except AA350W,AA352W, AA550W)	AM
⚠ ACC901	QACCB5005AJZZ	V	AC Cord (AA350W,AA352W, AA550W)	AY
⚠ F901	QFS-C2025CEZZ	V	Fuse, T2.0A/250V	AD
FB701	RBLN-0090GEZZY	V	Ferrite Bead	AB
FB901	RBLN-0090GEZZY	V	Ferrite Bead	AB
FB903	RBLN-0090GEZZY	V	Ferrite Bead	AB
FB931	RBLN-0090GEZZY	V	Ferrite Bead	AB
⚠ FH901	QFSHD1017CEZZ+	V	Fuse Holder	AC
⚠ FH902	QFSHD1018CEZZ+	V	Fuse Holder	AC
J201	QJAKH0011AJZZ	V	Rear AV Jack (except AA550W)	AK
J201	QJAKH0044AJZZ	V	Rear AV Jack (AA550W)	AE
J202	QJAKF0065AJZZ	V	Front AV Jack (AA352W,AA550/L/W,AA560A,AA570A)	AG
LC8001	RLCDDA005WJZZ	V	Display	AN
P501	QPLGZ0509REZZ	V	Plug, 5pin (AA370A)	AC
P501	QPLGZ0409REZZ	V	Plug, 4pin (AA550A/L/W,AA560A)	AB
P501	QPLGZ0809REZZ	V	Plug, 8pin (AA570A)	AC
P502	QPLGZ0409REZZ	V	Plug, 4pin (AA370A,AA570A)	AB
P503	QPLGZ0509REZZ	V	Plug, 5pin (AA370A,AA550A/L/W,AA560A)	AC
P503	QPLGZ0809REZZ	V	Plug, 8pin (AA570A)	AC
P701	QPLGZ1283GEZZ	V	Plug, 12pin	AE
P809	QPLGN0459REZZ	V	Plug, 7pin(AO)	AG
P901	QPLGN0269GEZZ	V	Plug, 2pin	AB
TP201	QPLGN0447REZZ	V	Plug, 4pin(TP201-4)	AA
RMC801	RRMCU0086GEZZ	V	Remote Receiver	AQ
S701	QSW-F0042AJZZ	V	Rec Tip Switch	AG
S703	QSW-K0098GEZZY	V	Reset Switch	AF
S704	QSW-RA001WJZZ	V	Switch	AF
S801	QSW-K0004AJZZ+	V	Switch	AB
S802	QSW-K0004AJZZ+	V	Switch	AB
S803	QSW-K0004AJZZ+	V	Switch	AB
S804	QSW-K0004AJZZ+	V	Switch	AB
S805	QSW-K0004AJZZ+	V	Switch	AB
S806	QSW-K0004AJZZ+	V	Switch	AB
S807	QSW-K0004AJZZ+	V	Switch	AB
S808	QSW-K0004AJZZ+	V	Switch	AB
SC301	QSOCNA006WJZZ	V	Socket, 6pin(AH)	AD
SC601	QSOCN0611REN1	V	Socket, 6pin(AA)	AC
SC602	QSOCZ0293GEZZ	V	Socket, 2pin(AE)	AC
SC803	QSOCZ0457GEZZ	V	Socket, 6pin(AM)	AC
W8002	PSHEP0349AJZZ	V	Deffusion Sheet	AC

DUNTKB205TE V1/V3/V4
SECAM/NTSC SKEW Unit

INTEGRATED CIRCUITS

IC261	VHiTL8857F/-1Y	V	TL8857F (AA550A/L/W,AA560A,AA570A)	AM
IC501	VHiTA1238F/-1Y	V	TA1238F (AA370A,AA570A)	AR

TRANSISTORS

Q261	VS2PD601AR/-1Y	V	2PD601AR (AA550A/L/W,AA560A,AA570A)	AB
Q262	VS2PD601AR/-1Y	V	2PD601AR (AA550A/L/W,AA560A,AA570A)	AB
Q263	VS2PD601AR/-1Y	V	2PD601AR (AA550A/L/W,AA560A,AA570A)	AB
Q264	VS2PB709AR/-1Y	V	2PB709AR (AA550A/L/W,AA560A,AA570A)	AB
Q504	VS2PD601AR/-1Y	V	2PD601AR (AA370A,AA570A)	AB
Q505	VS2PD601AR/-1Y	V	2PD601AR (AA370A,AA570A)	AB
Q506	VSKRC104S//-1Y	V	KRC104S (AA370A,AA570A)	AA
Q507	VSKRA104S//-1Y	V	KRA104S (AA370A,AA570A)	AA
Q508	VSKRC102S//-1Y	V	KRC102S (AA570A)	AA

DIODES

D501	VHD1SS119//-1Y	V	1SS119 (AA570A)	AA

PACKAGED CIRCUITS

X503	RCRSB0225GEZZ+	V	Crystal (AA370A,AA570A)	AH

COILS AND TRANSFORMERS

L261	VP-ZK680K0000+	V	Peaking 68µH (AA550A/L/W,AA560A,AA570A)	AB
L262	VP-ZK680K0000+	V	Peaking 68µH (AA550A/L/W,AA560A,AA570A)	AB
L263	VP-XF330J0000+	V	Peaking 33µH (AA550A/L/W,AA560A,AA570A)	AB

CAPACITORS

C261	VCKYCY1CB104KY	V	0.1 16V Ceramic (AA550A/L/W,AA560A,AA570A)	AB
C262	VCKYCY1HB472KY	V	4700p 50V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C263	VCEA9M0JW476M+	V	47 6.3V Electrolytic (AA550A/L/W,AA560A,AA570A)	AB

Ref. No.	Part No.	★	Description	Code
C264	VCKYCY1HF103ZY	V	0.01 50V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C265	VCEA9M0JW476M+	V	47 6.3V Electrolytic (AA550A/L/W,AA560A,AA570A)	AB
C266	VCKYCY1HF103ZY	V	0.01 50V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C267	VCEA9M1HW105M+	V	1 50V Electrolytic (AA550A/L/W,AA560A,AA570A)	AB
C268	VCKYCY1HF103ZY	V	0.01 50V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C269	VCEA9M0JW476M+	V	47 6.3V Electrolytic (AA550A/L/W,AA560A,AA570A)	AB
C270	VCCCCY1HH330JY	V	33p 50V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C271	VCCCCY1HH2R0CY	V	2.0p 50V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C272	VCCCCY1HH330JY	V	33p 50V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C273	VCEA9M1CW476M+	V	47 16V Electrolytic (AA550A/L/W,AA560A,AA570A)	AB
C274	VCEA9A1HW105M+	V	1 50V Electrolytic (AA550A/L/W,AA560A,AA570A)	AB
C275	VCEA9A1HW105M+	V	1 50V Electrolytic (AA550A/L/W,AA560A,AA570A)	AB
C276	VCEA9M1HW474M+	V	0.47 50V Electrolytic (AA550A/L/W,AA560A,AA570A)	AB
C277	VCKYCY1HF103ZY	V	0.01 50V Ceramic (AA550A/L/W,AA560A,AA570A)	AA
C551	VCKYCY1EB103KY	V	0.01 25V Ceramic (AA370A,AA570A)	AA
C552	VCKYCY1CF104ZY	V	0.1 16V Ceramic (AA370A,AA570A)	AA
C553	VCKYCY1CF104ZY	V	0.1 16V Ceramic (AA370A,AA570A)	AA
C554	VCCCCY1HH120JY	V	12p 50V Ceramic (AA370A,AA570A)	AA
C555	VCKYCY1CF104ZY	V	0.1 16V Ceramic (AA370A,AA570A)	AA
C557	VCKYCY1CB393KY	V	0.039 16V Ceramic (AA370A,AA570A)	AA
C558	VCEA9M1HW225M+	V	2.2 50V Electrolytic (AA370A,AA570A)	AB
C559	VCKYCY1CF334ZY	V	0.33 16V Ceramic (AA370A,AA570A)	AB
C560	VCKYCY1CB104KY	V	0.1 16V Ceramic (AA370A,AA570A)	AB
C561	VCKYCY1CB104KY	V	0.1 16V Ceramic (AA370A,AA570A)	AB
C562	VCKYCY1CB104KY	V	0.1 16V Ceramic (AA370A,AA570A)	AB
C563	VCEA9M0JW476M+	V	47 6.3V Electrolytic (AA370A,AA570A)	AB
C564	VCEA9M1HW474M+	V	0.47 50V Electrolytic (AA370A,AA570A)	AB
C565	VCKYCY1CB473KY	V	0.047 16V Ceramic (AA370A,AA570A)	AA
C566	VCKYCY1HF103ZY	V	0.01 50V Ceramic (AA370A,AA570A)	AA
C567	VCEA9M1HW474M+	V	0.47 50V Electrolytic (AA370A,AA570A)	AB
C568	VCKYCY1CB473KY	V	0.047 16V Ceramic (AA370A,AA570A)	AA
C569	VCKYCY1CF104ZY	V	0.1 16V Ceramic (AA370A,AA570A)	AA
C570	VCKYCY1HF103ZY	V	0.01 50V Ceramic (AA370A,AA570A)	AA
C571	VCKYCY1CF334ZY	V	0.33 16V Ceramic (AA370A,AA570A)	AB

RESISTORS

Ref. No.	Part No.	★	Description	Code
R261	VRS-CY1JF821JY	V	820 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R262	VRS-CY1JF562JY	V	5.6k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R263	VRS-CY1JF272JY	V	2.7k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R264	VRS-CY1JF102JY	V	1k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R265	VRS-CY1JF271JY	V	270 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R266	VRS-CY1JF102JY	V	1k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R267	VRS-CY1JF472JY	V	4.7k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R268	VRS-CY1JF152JY	V	1.5k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R269	VRS-CY1JF222JY	V	2.2k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R270	VRS-CY1JF272JY	V	2.7k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R271	VRS-CY1JF472JY	V	4.7k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R272	VRS-CY1JF102JY	V	1k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R273	VRD-RA2BE103JY	V	10k 1/8W Carbon (AA550A/L/W,AA560A,AA570A)	AA
R274	VRS-CY1JF102JY	V	1k 1/16W Metal Oxide (AA550A/L/W,AA560A,AA570A)	AA
R551	VRS-CY1JF562JY	V	5.6k 1/16W Metal Oxide (AA370A,AA570A)	AA
R552	VRS-CY1JF103JY	V	10k 1/16W Metal Oxide (AA370A,AA570A)	AA
R553	VRS-CY1JF103JY	V	10k 1/16W Metal Oxide (AA370A,AA570A)	AA
R554	VRS-CY1JF102JY	V	1k 1/16W Metal Oxide (AA370A,AA570A)	AA
R555	VRS-CY1JF102JY	V	1k 1/16W Metal Oxide (AA370A,AA570A)	AA
R556	VRS-CY1JF392JY	V	3.9k 1/16W Metal Oxide (AA370A,AA570A)	AA
R557	VRS-CY1JF562JY	V	5.6k 1/16W Metal Oxide (AA370A,AA570A)	AA
R558	VRS-CY1JF563JY	V	56k 1/16W Metal Oxide (AA370A,AA570A)	AA
R559	VRS-CY1JF102JY	V	1k 1/16W Metal Oxide (AA370A,AA570A)	AA
R560	VRS-CY1JF103JY	V	10k 1/16W Metal Oxide (AA370A,AA570A)	AA
R561	VRS-CY1JF473JY	V	47k 1/16W Metal Oxide (AA370A,AA570A)	AA
R562	VRS-CY1JF472JY	V	4.7k 1/16W Metal Oxide (AA370A,AA570A)	AA
R563	VRS-CY1JF222JY	V	2.2k 1/16W Metal Oxide (AA370A,AA570A)	AA
R564	VRS-CY1JF222JY	V	2.2k 1/16W Metal Oxide (AA370A,AA570A)	AA
R566	VRS-CY1JF102JY	V	1k 1/16W Metal Oxide (AA370A,AA570A)	AA
R567	VRS-CY1JF102JY	V	1k 1/16W Metal Oxide (AA370A,AA570A)	AA
R568	VRS-CY1JF222JY	V	2.2k 1/16W Metal Oxide (AA370A,AA570A)	AA
R569	VRS-CY1JF103JY	V	10k 1/16W Metal Oxide (AA570A)	AA
R570	VRS-CY1JF103JY	V	10k 1/16W Metal Oxide (AA570A)	AA
R571	VRS-CY1JF000JY	V	0 1/16W Metal Oxide (AA370A)	AA

MISCELLANEOUS PARTS

SC501	QSOCZ0509REZZ	V	Socket, 5pin (AA370A)	AC
SC501	QSOCZ0409REZZ	V	Socket, 4pin (AA550A/L/W,AA560A)	AC
SC501	QSOCZ0809REZZ	V	Socket, 8pin (AA570A)	AC
SC502	QSOCZ0409REZZ	V	Socket, 4pin (AA370A,AA570A)	AC
SC503	QSOCZ0509REZZ	V	Socket, 5pin (AA370A,AA550A/L/W,AA560A)	AC
SC503	QSOCZ0809REZZ	V	Socket, 8pin (AA570A)	AC

MECHANISM CHASSIS PARTS

Ref. No.	Part No.	★	Description	Code
1	LBNDK1021AJZZ	V	Tension Band Ass'y	AC
2	LBOSZ1022AJZZ	V	Tension Arm Boss	AB
4	LBOSZ1006AJZZ	V	Cassette Stay L	AD
5	LCHSM0186AJZZ	V	Main Chassis Ass'y	AQ
6	LHLDZA049WJZZ	V	Loading Motor Block	AD
7	LPOLM0085GEZZ	J	Supply Pole Base Ass'y	AF
8	LPOLM0086GEZZ	J	Take-up Pole Base Ass'y	AF
9	MLEVF0544AJZZ	V	Tension Arm Ass'y	AE
10	MARMP0061AJZZ	V	Loading Arm Take-up	AC
11	MARMP0062AJZZ	V	Loading Arm Supply	AC
12	MLEVF0545GEZZ	J	Pinch Roller Lever Ass'y	AM
13	NBRGP0031AJZZ	V	Pinch Guide Bearing	AB
16	LANGFA008WJFW	V	A/C Head Plate	AD
17	LHLDW1895AJZZ	V	A/C Head FFC Holder	AB
18	MLEVP0347AJZZ	V	Pinch Double Action Lever	AC
19	MLEVP0344AJZZ	V	Reverse Guide Lever Ass'y	AE
20	MLEVP0342AJZZ	V	Loading Link Take-up	AB
21	MLEVP0343AJZZ	V	Loading Link Supply	AB
23	MLEVP0346AJZZ	V	Clutch Lever	AC
24	MLEVP0348AJZZ	V	Supply Main Brake	AB
25	MLEVP0349AJZZ	V	Take-up Main Brake Ass'y	AC
27	MSLiP0016AJZZ	V	Shifter	AD
28	MSPRD0210AJFJ	V	Reverse Guide Spring	AB
29	MSPRD0213AJFJ	V	Take-up Load Double Action Spring	AB
30	MSPRD0214AJFJ	V	Supply Load Double Action Spring	AB
31	MSPRT0439AJFJ	V	Pinch Double Action Spring	AB
32	MSPRT0438AJFJ	V	Main Brake Spring	AB
33	MSPRT0416AJFJ	V	Tension Spring	AD
34	NBLTK0069AJ00	V	H-Reel Belt	AC
35	NDAiV1093AJ00	V	Reel Disk	AC
36	NGERW1082AJZZ	V	Worm Wheel Gear	AC
37	NGERH1344AJZZ	V	Master Cam	AD
38	NGERH1343AJZZ	V	Synchro Gear	AB
41	NGERH1345AJZZ	V	Pinch Drive Cam	AC
43	NGERH1299AJZZ	V	Reel Relay Gear	AE
44	NGERW1081AJZZ	V	Worm Gear	AB
45	NGERH1342AJZZ	V	Loading Connect Gear	AB
46	NiDR-0036AJZZ	V	Idler Ass'y	AD
48	NPLYV0173AJZZ	V	Limiter Pully Ass'y	AF
49	NROLP0131GEZZ	J	Guide Roller	AL
51	MSPRC0217AJFJ	V	Guide Roller Spring	AC
52	PREFL1025AJZZ	V	Light Guide	AC
53	QCNW-A245WJZZ	V	Drum Motor FFC	AE
55	QCNW-A247WJZZ	V	A/C Head FFC	AD
56	QPWBFB112WJZZ	V	A/C Head PWB	AC
58	RHEDTA001WJZZ	V	Full Erase Head	AH
59	RHEDUA002WJZZ	V	A/C Head Ass'y With AE	AP
60	RMOTMA001WJZZ	V	Loading Motor	AK
61	RMOTNA001WJZZ	V	Capstan Motor	AX
62	RMOTP1139GEZZ	J	Drum Drive Motor	AT
63	DDRMW0041TEX1	V	Upper and Lower Drum (AA350A/L/M/W,AA352W,AA360A)	BF
63	DDRMW0041TEX2	V	Upper and Lower Drum (AA370A)	BF
63	DDRMW0042TEX2	V	Upper and Lower Drum (AA550A/L/W,AA560A,AA570A)	BF
64	QCNW-A244WJZZ	V	Loading Motor Wire	AB
65	QBRSK0041GEZZ	J	Earth Brush Ass'y	AD
66	XBPSD26P04500	V	2.6P+4.5A(D/M)	AB
67	PGiDM0187AJZZ	V	Open Guide	AC
70	MSPRC0228AJFJ	V	Azimuth Spring	AB
71	MSPRC0224AJFJ	V	Height Adjusting Spring	AC
72	LHLDW1894AJZZ	V	R/T FFC Holder	AB
73	MLEVP0355AJZZ	V	Auto Head Cleaner	AC

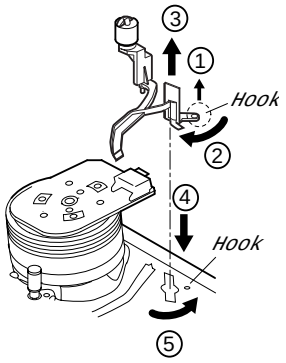
SCREW, NUTS AND WASHERS

Ref. No.	Part No.	★	Description	Code
201	XBPSD26P08000	V	2.6P+8S A/C Head	AA
202	LX-BZ3096GEFD	J	Tilt Adjusting Screw	AA
203	LX-HZ3082GEZZ	J	WSW 2.6+6(AC)	AD
204	XJPSD26P06000	V	2.6+6S(CAPST)	AA
205	LX-RZ3015GEFJ	J	CS Washer	AB
208	XRESJ30-06000	V	E-3(MASTERCAM)	AA
209	XWHJZ31-03052	V	Reel Washer 0.3	AC
210	XWHJZ31-04052	V	Reel Washer 0.4	AC
211	XWHJZ31-05052	V	Reel Washer 0.5	AC
212	XWHJZ31-06052	V	Reel Washer 0.6	AC
213	XWHJZ31-07052	V	Reel Washer 0.7	AC
214	XWHJZ31-08052	V	Reel Washer 0.8	AC
215	XHPSD26P05WS0	V	L/M Block Screw	AC
216	LX-WZ1041GE00	J	CW2.6-6-0.5 ARM	AA
219	LX-WZ1098GE00	J	CW2.6-4.7-0.5	AB
221	XBPSD26P06000	V	Azimuth Adjusting Screw	AA
222	XBPSD26P14000	V	A/C Head Screw	AA
224	XBPSD30P06000	V	3P+6S (DRM FIX)	AA

CASSETTE HOUSING CONTROL PARTS

Ref. No.	Part No.	★	Description	Code
300	CHLDX3083TEV1	V	Cassette Housing Control Ass'y	AP
301	LANGF9661AJFW	V	Upper Plate	AD
302	LHLDX1049AJ00	V	Frame (L)	AD
303	LHLDX1050AJ00	V	Frame (R)	AE
304	LHLDX1051AJZZ	V	Holder (L)	AC
305	LHLDX1052AJZZ	V	Holder (R)	AC
306	MARMP0063AJZZ	V	Drive Arm (L)	AB
307	MARMP0064AJZZ	V	Drive Arm (R)	AC
308	MLEVP0350AJZZ	V	Drive Lever	AD
309	MLEVP0351AJZZ	V	Proof Lever	AC
310	MLEVP0352AJ00	V	Sensor Plate	AB
311	MLEVP0353AJ00	V	Open Lever	AB
312	MSLiF0079AJFW	V	Slider	AD
313	MSPRD0212AJFJ	V	Drive Arm Spring	AB
314	MSPRP0175AJFJ	V	Cassette Spring	AE
315	MSPRD0215AJFJ	V	Proof Lever Spring	AB
317	NSFTD0065AJFD	V	Main Shaft	AD

• Replacing the AHC (Auto Head Cleaner)



• How to remove
Turn the H-AHC ass'y in the direction of (2), lifting the hook of the H-AHC ass'y in the direction of (1). When the hook is undone, pull out the H-AHC ass'y in the direction of (3).
• How to install
Insert the H-AHC ass'y into the hole on the chassis in the direction of (4) and turn it in the direction of (5). Check that the chassis hook and hook of the H-AHC ass'y are engaged.

* Caution when replacing
• Do not allow the AHC ass'y to contact with the drum.
• Do not contaminate the cleaner section of the AHC ass'y with grease, etc.

Ref. No.	Part No.	★	Description	Code

CABINET PARTS

600	GCABA3169AJSM	V	Top Cabinet (AA360A,AA370A,AA560A,AA570A)	AN
600	GCABA3169AJSW	V	Top Cabinet (AA350A/L/M/W,AA352W,AA550A/L/W)	AN
601	GCABB1253AJNA	V	Main Frame (AA350A/L/M/W,AA352W,AA550A/L/W)	AN
601	GCABB1253AJNB	V	Main Frame (AA360A,AA370A,AA560A,AA570A)	AN
602	GCOVA2229AJZZ	V	Antenna Terminal Cover	AC
603	XHPSD30P06WS0	V	Screw(Chassis)	AA
604	LANGK0261AJFW	V	Top Cabinet Fix Angle	AC
605	XEPSD30P14XS0	V	Screw(Panel/Mecha)	AB
606	LX-HZ3047GEFF	V	Screw(Top Cab.)	AA
607	XEBSD30P12000	V	Screw(Ant. Cover)	AA
608	LHLDZ2185AJ00	V	Sensor LED Cover	AB
609	PGUMS0026AJZZ	V	Foot Cushion	AB
610	TLABM4623AJZZ	V	Model Label (AA350A)	AC
610	TLABM4625AJZZ	V	Model Label (AA350L)	AC
610	TLABM4626AJZZ	V	Model Label (AA360A)	AC
610	TLABM4627AJZZ	V	Model Label (AA370A)	AC
610	TLABM4630AJZZ	V	Model Label (AA560A)	AC
610	TLABM4631AJZZ	V	Model Label (AA570A)	AC
610	TLABM4635AJZZ	V	Model Label (AA550A)	AC
610	TLABM4637AJZZ	V	Model Label (AA550L)	AC
610	TLABMA063WJZZ	V	Model Label (AA350W)	AC
610	TLABMA064WJZZ	V	Model Label (AA550W)	
610	TLABMA156WJZZ	V	Model Label (AA350M)	AC
610	TLABMA194WJZZ	V	Model Label (AA352W)	AC
611	LHLDZ2184AJZZ	V	LCD Holder	AC
612	XHPSD26P06WS0	V	Screw(Cassecon)	AA
613	PSLDM4594AJFW	V	H/A Shield	AD

FRONT PANEL PARTS

500	CPNLC3050TEV1	V	Front Panel Ass'y (AA350A/L/M/W)	AT
500	CPNLC3051TEV1	V	Front Panel Ass'y (AA360A)	AR
500	CPNLC3052TEV1	V	Front Panel Ass'y (AA370A)	AR
500	CPNLC3054TEV1	V	Front Panel Ass'y (AA352W)	AT
500	CPNLC3055TEV1	V	Front Panel Ass'y (AA560A)	AR
500	CPNLC3056TEV1	V	Front Panel Ass'y (AA570A)	AR
500	CPNLC3059TEV1	V	Front Panel Ass'y (AA550A/L/W)	AT
500-1	————————	V	Front Panel	—
500-3	HDECQ2476AJSA	V	Cassette Flap (AA350A/L/M/W,AA352W)	AE
500-3	HDECQ2476AJSB	V	Cassette Flap (AA360A)	AE
500-3	HDECQ2478AJSA	V	Cassette Flap (AA370A)	AE
500-3	HDECQ2480AJSA	V	Cassette Flap (AA570A)	AE
500-3	HDECQ2484AJSA	V	Cassette Flap (AA550A/L/W)	AE
500-3	HDECQ2484AJSB	V	Cassette Flap (AA560A)	AE
500-4	HDECQ2477AJSA	V	Window Dec. (AA550A/L/W)	AE
500-4	HDECQ2477AJSB	V	Window Dec. (AA350A/L/M/W,AA352W)	AE
500-4	HDECQ2477AJSC	V	Window Dec. (AA360A,AA370A,AA560A,AA570A)	AE
500-5	HiNDP2237AJSA	V	LCD Indication Plate (AA360A,AA370A,AA560A,AA570A)	AD
500-5	HiNDP2237AJSB	V	LCD Indication Plate (AA350A/L/M/W,AA352W)	AD
500-5	HiNDP2237AJSC	V	LCD Indication Plate (AA550A/L/W)	AD
500-6	GCOVA2214AJZZ	V	R/C Cover	AC
500-7	MSPRD0105AJFJ	V	Cassette Flap Spring	AB
500-8	HBDGB1010AJSA	V	SHARP Badge (AA360A,AA370A,AA560A,AA570A)	AG
500-8	HBDGB1010AJSB	V	SHARP Badge (AA350A/L/M/W,AA352W,AA550A/L/W)	AG

Ref. No.	Part No.	★	Description	Code
501	JBTN-3159AJSA	V	Button, PLAY/STOP (AA350A/L/M/W,AA352W,AA550A/L)	AC
501	JBTN-3159AJSB	V	Button, PLAY/STOP (AA360A,AA370A,AA560A,AA570A)	AC
502	JBTN-3162AJSA	V	Button, FF/REW (AA350A/L/M/W,AA352W,AA550A/L)	AC
502	JBTN-3162AJSB	V	Button, FF/REW (AA360A,AA370A,AA560A,AA570A)	AC

SUPPLIED ACCESSORIES

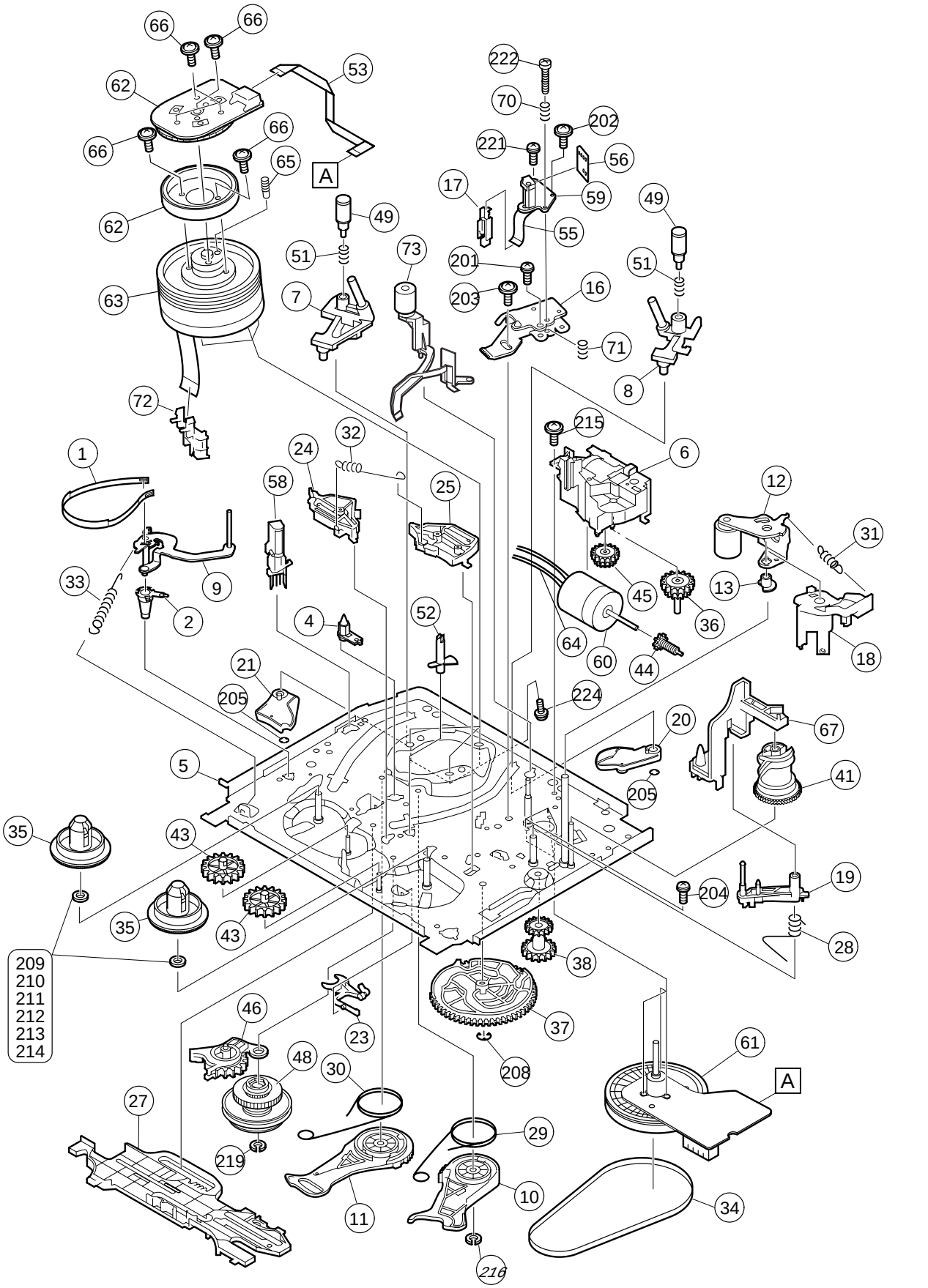
	QCNW-8379AJZZ	V	75 ohm Coaxial Cable	AF
	RRMCG1274AJSA	V	Infrared Remote Control Unit (AA350A/L/M/W,AA360A)	AV
	RRMCG1205AJSA	V	Infrared Remote Control Unit (AA352W)	AV
	RRMCG1208AJSA	V	Infrared Remote Control Unit (AA370A)	AS
	RRMCG1204AJSA	V	Infrared Remote Control Unit (AA550A/L/W,AA560A,AA570A)	AV
	TiNS-A021WJZZ	V	Operation Manual (AA350A/M/W,AA360A, AA550A/W, AA560A)	AL
	TiNS-A022WJZZ	V	Operation Manual (AA350L,AA550L)	AK
	TiNS-A023WJZZ	V	Operation Manual (AA352W)	AL
	TiNS-A024WJZZ	V	Operation Manual (AA370A,AA570A)	AP
	TMAPCA002WJZZ	V	Circuit Diagram (AA350L,AA550L)	AC

PACKING PARTS
(NOT REPLACEMENT ITEM)

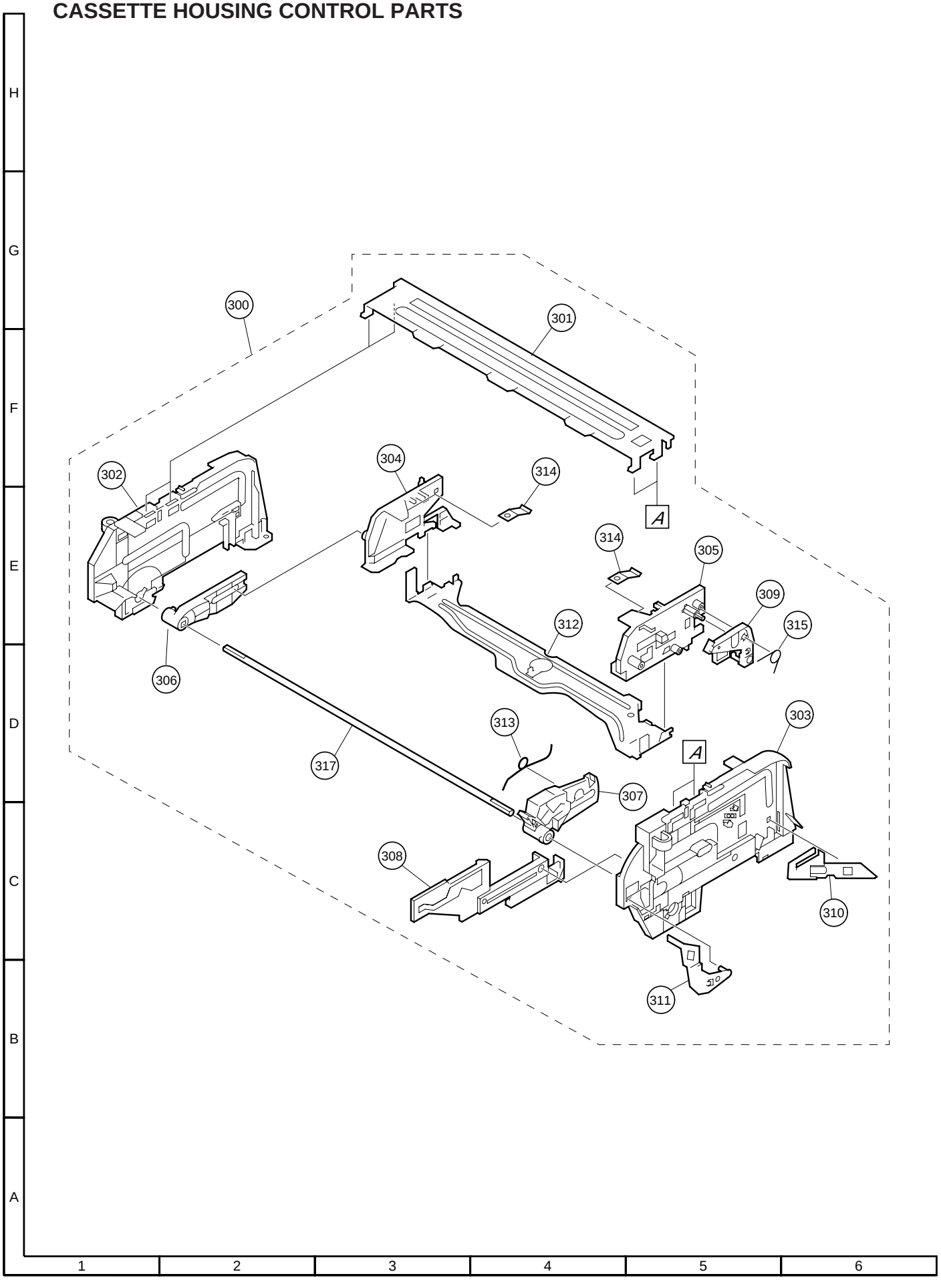
	SPAKC5253AJZZ	-	Packing Case (AA350A)	—
	SPAKC5255AJZZ	-	Packing Case (AA350L)	—
	SPAKC5256AJZZ	-	Packing Case (AA350M)	—
	SPAKC5257AJZZ	-	Packing Case (AA360A)	—
	SPAKC5258AJZZ	-	Packing Case (AA370A)	—
	SPAKC5260AJZZ	-	Packing Case (AA352W)	—
	SPAKC5261AJZZ	-	Packing Case (AA560A)	—
	SPAKC5262AJZZ	-	Packing Case (AA570A)	—
	SPAKC5266AJZZ	-	Packing Case (AA550A)	—
	SPAKC5268AJZZ	-	Packing Case (AA550L)	—
	SPAKCA091WJZZ	-	Packing Case (AA350W)	—
	SPAKCA092WJZZ	-	Packing Case (AA550W)	—
	SPAKX1152AJZZ	-	Packing Foam (except AA350W,AA352W)	—
	SPAKXA035WJZZ	-	Packing Foam (AA350W,AA352W)	—
	TLABV0182AJZZ	-	Bar Code label	—
	SPAKP0114AJZZ	-	Foam bag	—

11. EXPLODED VIEW OF MECHANICAL PARTS

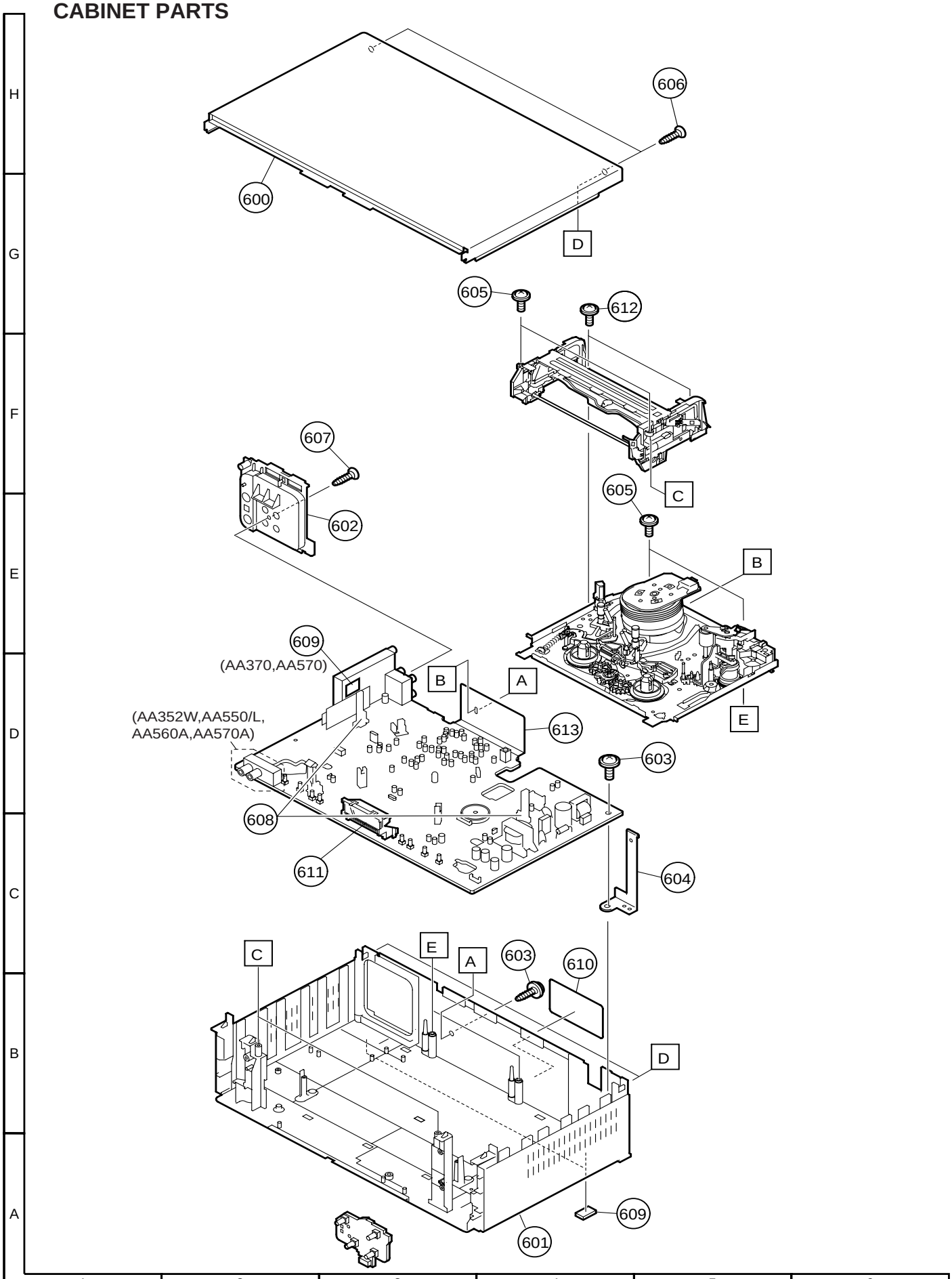
MECHANISM CHASSIS PARTS



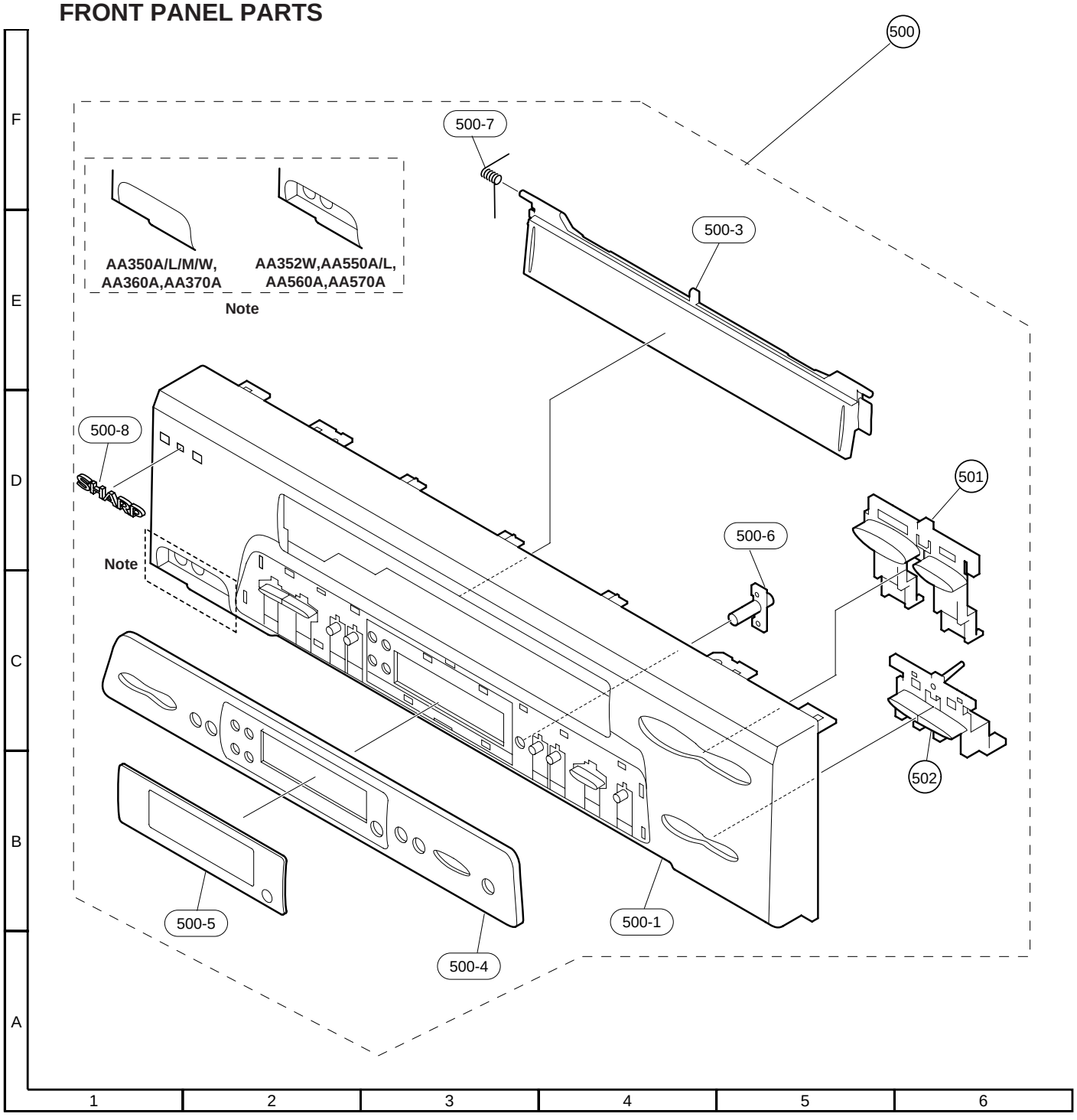
CASSETTE HOUSING CONTROL PARTS



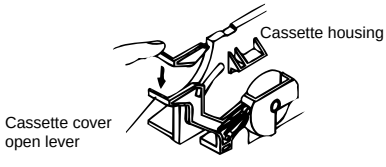
CABINET PARTS

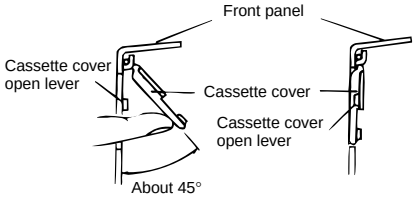


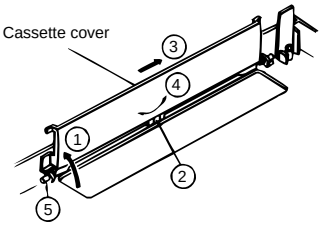
FRONT PANEL PARTS



PRECAUTION ON FRONT PANEL SET-UP







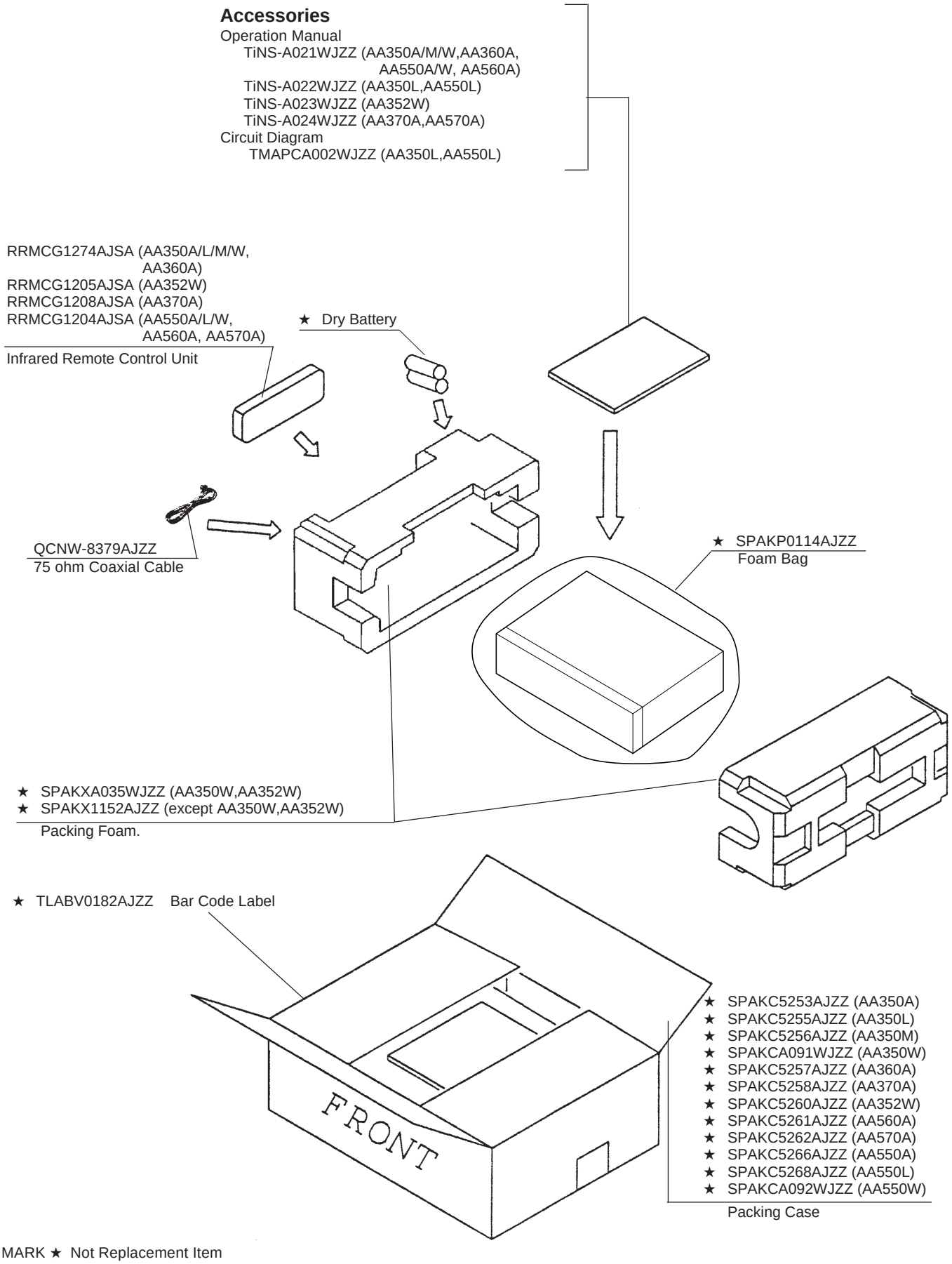
Before attaching the front panel in position, make sure that the cassette cover open lever is in its right place (lower-most). If it is out of position, push it down with a finger.

Keep the cassette over about 45° open and make sure that the cassette cover open lever is between the front panel and the cassette cover. Now fix the front panel in place.

Do not mount the front panel with the cassette cover tilted too open. Otherwise the cassette cover might wrongly run on the cassette housing.

Removing the cassette compartment cover.
① Open the cassette compartment cover fully.
② Remove the center positioner.
③ Slide the cover to the right.
④ Slightly bend the cover.
⑤ Draw out the left-side rod.

12. PACKING OF THE SET



MARK ★ Not Replacement Item

SHARP

Ⓓ SEM Ⓟ SMM TQ1377-S
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